

WEED WORLD™

ISSUE 157

CBD vs COVID

Can Cannabis
Curb the Opioid
epidemic?

CANNABIS IN THAILAND

Cannabis: **SEX** + REPRODUCTION

Take a trip to:
**The Emerald
Triangle**

WEED WORLD MAGAZINE.ORG

FOR EDUCATIONAL PURPOSES ONLY. NOT INTENDED FOR
ILLEGAL ACTIVITIES. PLEASE CHECK YOUR COUNTRY'S LAWS.

18

US \$10.99
UK £4.00
Can \$11.99

DISPLAY UNTIL
END OF JUL 2022



VISIT...

LANZAROTE
Caliente.COM

BUILD YOUR COLLECTION

ONLY £12 FOR 4 BACK ISSUES



FOR A FULL LIST OF ALL AVAILABLE BACK ISSUES, VISIT:

WEED WORLD MAGAZINE.ORG

NEVER MISS AN ISSUE – TURN TO PAGE 52 & SUBSCRIBE TODAY!

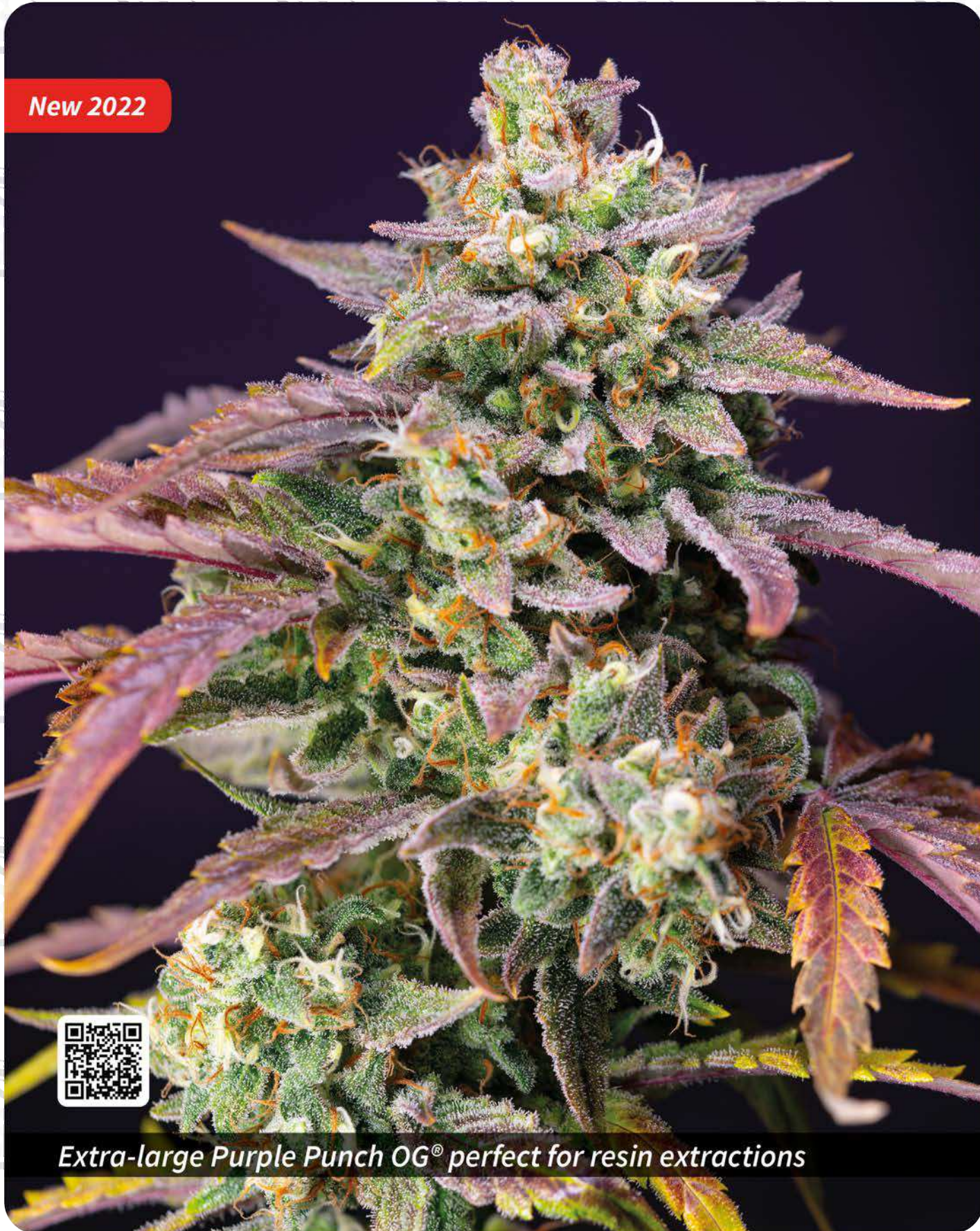
Email: orders@weedworld.co.uk | Call: 01974 821 518

*Excludes P&P. 4 issues: UK = £12.00 + £6.85 P&P. Prices quoted are subject to change. For up-to-date magazine costs in UK£, US\$ and EU€, including postage costs, please visit our online store: www.weedworld.co.uk. Weed World cannot be held responsible for any loss due to uninsured cash payments. Please use a secure, insured postal service. Availability of back issues is subject to change. Please check our website for stock availability.

Purple Punch OG XL Auto® SWS96



New 2022



Extra-large Purple Punch OG® perfect for resin extractions

THE ONLY ORIGINAL AND GUARANTEED SEEDS FROM SWEET SEEDS® ARE THOSE SOLD IN THEIR ORIGINAL PACKAGING
Sale forbidden to people under 18 years old. Seeds for collection purposes exclusively. It is illegal to make them germinate. They are not for agriculture purposes.
Consult laws about cannabis applied in your place of residence. Sweet Seeds S.L. will not be accountable for illegal use of these seeds done by third parties.
Sweet Seeds S.L. C/ Reverendo José María Pinazo 9 - 46020 - Valencia - Spain
+34 963 890 403 - WHOLESALERS: +34 963 473 730 / +34 963 404 289 - info@sweetseeds.es

www.sweetseeds.com



THE WORLD'S LARGEST CANNABIS SEED SUPERSTORE



DNA GENETICS
DNA CAKE



BARNEY'S FARM
KUSH MINTZ



WITH OVER
8000 STRAINS
FROM MORE THAN
200 BREEDERS



TH SEEDS
VANILLA SUNDAE

THE PLUG SEEDBANK
PATRÓN

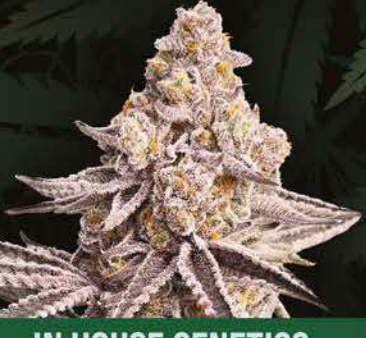


EXCLUSIVE
PROMOTIONS
AND COMPETITIONS

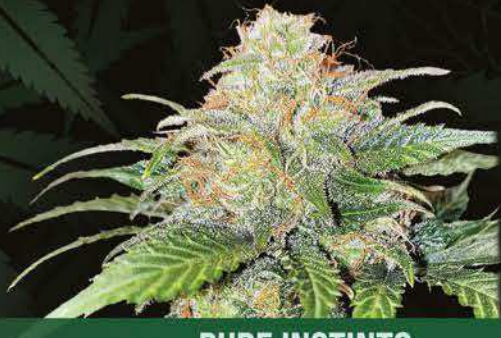


DUTCH PASSION
AUTO TRICHOME & CREAM

KARMA GENETICS
MELON CHEDDAR



DISCREET
WORLDWIDE SHIPPING



IN HOUSE GENETICS
SUPREMIUM

PURE INSTINTO
MANDARINE CREAM AUTO

WWW.THEATTITUDESEEDBANK.COM

TEL: 01473 359754

INT: 0044 1473 359754

YOU MUST BE AT LEAST 18 YEARS OLD TO ORDER CANNABIS SEEDS FROM THE ATTITUDE SEEDBANK.

IT IS AN OFFENCE TO CULTIVATE ANY PLANT OF THE GENUS CANNABIS IN MOST OF THE WORLD WITHOUT A LICENCE FROM THE SECRETARY OF STATE. ANYONE COMMITTING AN OFFENCE CONTRARY TO THIS SECTION MAY BE IMPRISONED, FINED OR BOTH. SEEDS ARE SOLD AS SOUVENIERS ONLY OR FOR THE PRESERVATION OF GENETICS OR INCASE LAWS MAY CHANGE. IT IS THE CUSTOMER'S RESPONSIBILITY TO CHECK LOCAL LAWS BEFORE ORDERING.



THE ATTITUDE
SEEDBANK

GRATEFUL SEEDS
ORANGE GROOVY BX

PHENO FINDER
PURPLE STRAWBERRY SHERBERT

CONNECTING THE WORLD WITH
**THE BEST
GENETICS**

SPITFIRE GENETICS
PEACH RUNTZ

RARE DANKNESS
OG GHOST TRAIN HAZE #1

G13 LABS
DOUBLE BLACK

GREEN HOUSE SEEDS
GH AMNESIA

**FREE SEEDS
WITH EVERY ORDER**

**10% OFF
WITH CODE
'WEEDWORLD'**

CALI CONNECTION GOLD LINE
78

GROUNDUP GENETICS
CAVIAR LIME



WELCOME TO WEED WORLD

ISSUE 157

WEED WORLD was founded in 1991 and is a bi-monthly (published every 2 months) magazine. We always knew the true benefits of medical marijuana so, with this in mind, we became a fighter for the cause and a true innovator. Our job was to keep people informed about this wonderful plant and how they can medicate themselves. We are still doing that to this day! Thanks to all of our readers for supporting us over the years and to all of the people who work with us to help create this amazing magazine.

WELCOME TO ISSUE 157

We hope that all of your preparations for the season are getting underway and that when you have some downtime, you can kick back and read this issue.

To keep you entertained, look out for "Africa's cannabis is booming, but is it that 'African'?" from Ray Mwareya, and Paul James has several topics of interest - here's one of our favorites: "Most Studies Show Cannabis isn't an Alternate Therapy, But it Can be Used as Supportive Therapy". Simpa looks at a topical point, "Weed and Warfare in Ukraine", and Sharon Letts' *Weed Traveler* series visits The Emerald Triangle's, "Historic and multi-generational farmers struggling in a legal market." Love Sweet Seeds but unsure which to choose? Then you should check out, "New Sweet Seeds® Strains for 2022".

Plus, we have so much more!

NEVER MISS AN ISSUE!

Weed World magazine subscriptions are available in print and digital formats.



The Weed World magazine app is available to download for your tablet and phone.

WARNING! Germination of Cannabis seed is illegal in the UK. Weed World Ltd sells seed as a collectible adult souvenir only. Please note: You have to be at least 18 years old to order any seeds.

UNITED KINGDOM LAWS. By section 6 of the Misuse of Drugs Act 1971 it is an offence to cultivate any plant of the genus Cannabis in the United Kingdom without a license from the Secretary of State. Anyone committing an offence contrary to this section may be imprisoned or fined, or both. Please note therefore that germination of cannabis seeds, without an appropriate license is illegal in the United Kingdom.

INTERNATIONAL LAWS. We dispatch our seeds on the condition that they will not be used by others in conflict with applicable local law. Unfortunately, regulation and implementation in respect of cannabis seeds differ tremendously from country to country. For this reason we advise you as a matter of urgency to make inquiries about the regulations in your country. Please be aware that even though some countries' laws are changing, please check your country's and do not violate any laws!

As a Weed World customer, you are prohibited from distributing seeds purchased, solely on the premise for souvenir or nutritional use only; to countries where possession of and/or trafficking in Cannabis seeds is illegal. Weed World Magazine Ltd and Weed World E-Zine, (to include Online Store) does not wish to induce anyone to act in conflict with the law. All persons who purchase seeds from Weed World online store, are responsible for their own actions in the future. All information contained within Weed World publications is strictly for educational purposes only and is not intended to condone, promote or incite the use of illegal and/or controlled substances.

THE ITALIAN VERSION OF WEED WORLD MAGAZINE will vary slightly from the English version. It features cannabis news, laws and legalization news relevant for the Italian market.

ADVERTISING & DISTRIBUTION

UK 01974 821518
Europe ++44 1974 821518
USA ++144 1974 821518
sam@weedworld.co.uk

FOR SALES ENQUIRIES, PLEASE EMAIL:
orders@weedworld.co.uk

FOR GENERAL ENQUIRIES:
magazine@weedworld.co.uk

FOR SOCIAL MEDIA CONTENT:
media@weedworld.co.uk

Weed World, Tregaron, SY25 6PX, UK

ITALIAN WEED WORLD
www.weedworld.it | info@weedworld.it

HIGH
THC

FEM

550G
PER M²

EMERALD TRIANGLE SEEDS

WWW.EMERALDTRIANGLESEEDS.CO.UK



BANANA MASS

CRITICAL MASS X BANANA KUSH >> CBD 0.5% >> THC 22+%

Cotton Candy Cane

Blueberry Gelato

Leviathan CBG

Gorilla Glue #4

20+ YEARS BREEDING EXPERIENCE • AUTOS • CBD STRAINS • FEM/REG

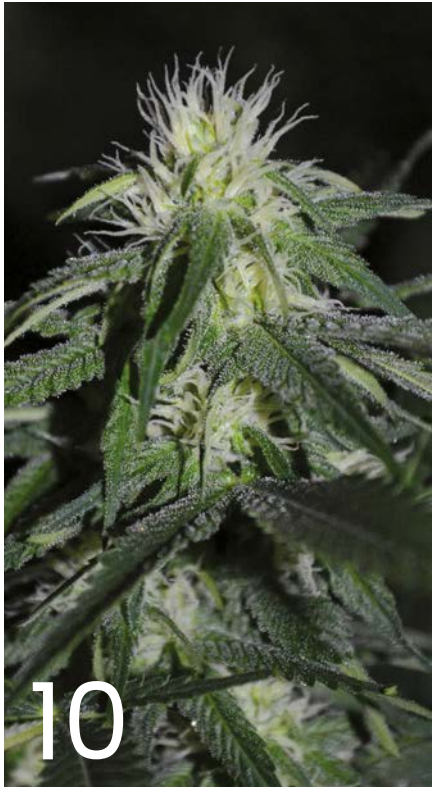
RETAILERS



DISTRIBUTORS



IN THIS ISSUE:



FEATURED PRODUCTS: BANANA MASS

Emerald Triangle Seeds have crossed the original Critical Bilbao, from Bilbao in the Basque region of northern...



DAY ZERO: CANNABIS IN THAILAND

The hot topic in Thailand right now is Marijuana and Hemp which on 9th DEC last year was removed from its...



WOMEN OF WEED WORLD: MICHELLE & LAUREN

Michelle and Lauren Hackett, Riverview Farm: Third generation food farmers with a focus on cannabis...

PLUS...

- | | | | |
|----|--|-----|---|
| 18 | How Republicans Want to Legalize Cannabis... | 76 | Kitchen Apothecary |
| 22 | Is too much THC bad for men's reproductive health? | 78 | Cooking with Carosi |
| 26 | Africa's Cannabis is Booming... | 80 | The Weed Traveler: The Emerald Triangle |
| 30 | Cannabisissippi | 84 | Growing Different Strains Together Outdoors |
| 34 | Will the Delta-8 Phenomenon Last? | 88 | A-Z of Health Complaints |
| 38 | Unlocking CBN | 90 | New Sweet Seeds® Strains for 2022 |
| 42 | Cannabis Could Make Sexual Experiences More... | 94 | CBD May Be Able to Protect Against Covid-19 |
| 46 | A Bugs Life: Root Rot | 98 | Darling Buds |
| 50 | The Rise of Psychoactive Cannabinoid Products | 100 | Weed and Warfare in Ukraine |
| 54 | Show Me The Money | 104 | Entertainment Reviews |
| 56 | Cannabis as a Supportive Therapy | 108 | Instagrammer of the Month |
| 60 | The Challenge of Cannabis Marketing | 112 | Helplines |
| 62 | Can Cannabis Help Curb the Opioid Epidemic? | 113 | Coupons & Discounts |
| 70 | Featured Strain: Dr Grinspoon | 115 | Case Study: Cannabis & Coronavirus-2 |

AND more tasty snippets inside!

Cover: Triple Scoop by Eleven8, image by grower: @_topshelfgrower_

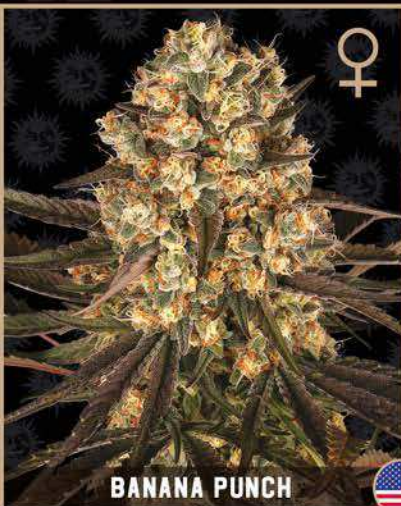


**BARNEY'S
FARM**
SINCE 1996

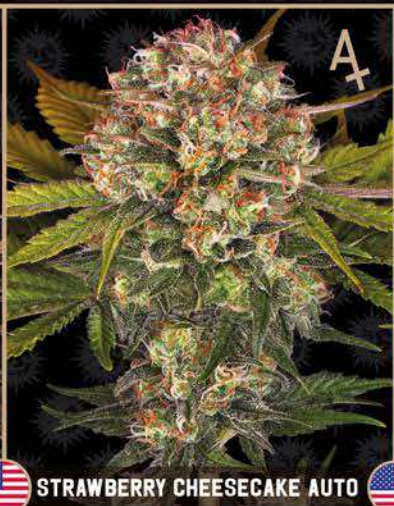
New
**KUSH
MINTZ™**



FIND YOUR NEAREST WHOLESALE & RETAILER WWW.BARNEYSFARM.COM



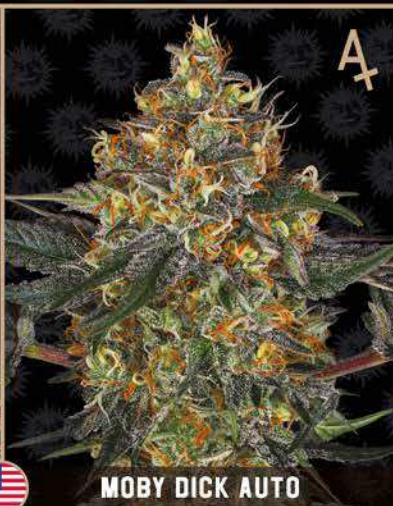
BANANA PUNCH



 **STRAWBERRY CHEESECAKE AUTO**



 **AMNESIA HAZE AUTO**



 **MOBY DICK AUTO**



Brand New for 2022!

Banana Mass

Emerald Triangle Seeds have crossed the original Critical Bilbao, from Bilbao in the Basque region of northern Spain, with the Northern Californian fruity Strawberry Banana strain that has developed its own reputation within the cannabis world.

As would be expected from any strain with the original Critical Bilbao in it, this plant has a great production of huge colas but also has the added fruity Strawberry fruit flavors from the Strawberry Banana Kush, thereby making it a perfect plant for any grower with a sweet tooth that wants a large yield.

Very easy to grow and produces very large volumes of sticky sweet fruity smelling and tasting flowers, ripe for your table.

CBD 0.5% | THC 22+%

Available from: emeraldtriangleseeds.co.uk

Bruce Banner Auto®

This time Sweet Seeds® brings us a monstrous and extremely aromatic strain with high THC levels that can reach to up to 25% or even higher in some plants. You can expect a potent long-lasting effect that enhances imagination with an euphoric and happy mood. All this in just 9 weeks after the germination of the seeds.

This 7th Generation autoflowering strain is the autoflowering version of one of the most famous "Super Strong" strains from the West Coast of the USA, the powerful and revolutionary Bruce Banner, developed in Colorado to delight cannabis growers from all around the world.

Bruce Banner Auto® (SWS91) is the result of the cross between an elite clone of Bruce Banner and a selected genetic line of Gorilla Girl XL Auto® (SWS82). The plants have a sweet aroma with fruity, floral notes reminiscent of the Diesel family, along with the finest earthy tones.

Available from: sweetseeds.com



From Sweet Seeds®



Headline

OG Lemon Bilbo

OG Lemon Bilbo is a cross of the famous OG Kush Lemon Larry from California with a stable Afghani plants, obtaining an indica plant that fully maintains the characteristics of the mother OG KUSH.

It is a half-height indica plant, fully recommended for SOG, and especially resistant to fungal infections. In flowering, the buds forming long white tails with many long hairs and have a very citrus aromas. Good production and ready to harvest in 60 days.

A real treat odors and flavors, earthy moss type fused with lemon. Its effect is relaxing, narcotic, as classic indica variety.

Type: Indica (indica / sativa)

Indoor Production: 400-450 gr/m²

Outdoor Production: 1000-1300 gr/plant

Indoor Flowering: 60-65 days

Outdoor Harvest: October (N. hemisphere) – April (S. hemisphere)

Available from: weedworld.co.uk



Great Gift!

Leaf-Way 5-in-1 Bamboo Rolling Box Set

Everything you need, in one set:

- **Bamboo Box with Lock & Key**
- **UV Protecting Glass Stash Jar**
- **4-Part Metal Grinder**
- **Metal Tray**
- **Poker Tool**

Available from: weedworld.co.uk

Apparel & Accessories

Exceptional apparel and accessories from socks and t-shirts to home accessories are available in our online store.

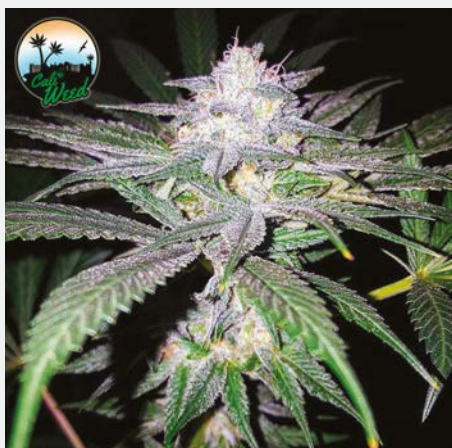
Start with premium quality socks featuring cannabis leaves, created by an amazing team at one of the most respected and pioneering skate and lifestyle brands worldwide - HUF. Pick t-shirts and hoodies in a wide range of designs and colours from brands such as Alien Labs, Greenhouse Seed Co, G13 Labs, Lemon Life SC, Runtz and Zkittlez to name just a few. Finish it up with head wear from DNA Genetics, The Smoker's Club or The Attitude Smoking Lounge.

Want some more? We also have Coffee cups, Sativa hemp bags, Moodmats and towels!

Available from: attitude-smoking-lounge.com



Refresh Your Wardrobe!



Headline

Headbanger

This strain needs no introduction. A fan favorite and probably our favorite too. Sativa dominant hybrid with the dense buds you have come to expect from Bubba Kush 2.0.

A perfect hybrid mix with an unrivaled high. It's called Headbanger for a reason. Whether you want a day or night-time smoke we recommend the long-awaited Headbanger from Cali Weed.

THC: High (15-20%) | CBD: Low (0-1%)
Environment: Indoor, Outdoor, Greenhouse
Genetics: Mainly Sativa
Heritage: Tangerine X The Hook
Flowering Time: 10-11 WEEKS
Height: Medium | Yield: High

Available from: weedworld.co.uk



House of the Great Gardener

Digweed

Digweed is named after the elderly cat at House of the Great Gardener (HOTGG) which has a penchant for eating marijuana. This Indica dominant cannabis strain from HOTGG is derived by pollinating a Sweet Tooth female with a GG#1 male. Digweed is an original HOTGG variety, developed in-house. When HOTGG cultivated this strain of marijuana in a legal territory, the plants grew vigorously, sprouting side branches with large, dense, dank buds with an earthy fragrance and floral undertones. In territories where marijuana is legal as a medicine, Digweed has proved to be effective in relieving the symptoms of chronic pain and muscle spasms as well as being a very effective stressbuster.

Genetics: Sweet Tooth x GG #1 | **Indica/Sativa Hybrid** | **Feminized**
Flowering Time: 7 weeks

Available from: weedworld.co.uk

Durban Dew

Durban Poison X Frisian Dew

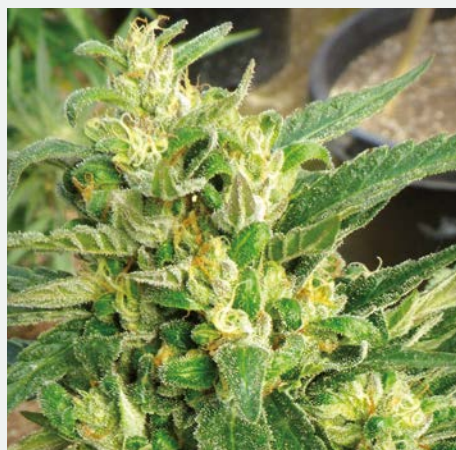
Frisian Dew and Durban Poison are two of Dutch Passion's most reliable outdoor strains, both capable of succeeding where others fail. They both thrive in cool/gray conditions. By crossing Durban Poison and Frisian Dew in a careful multi-year breeding project a new outdoor legend has been created - Durban Dew. She combines the yields and toughness of Frisian Dew with the potency of Durban Poison. Expert selective breeding ensures an outdoor performance that all serious guerrilla growers (or greenhouse growers) will love.

Durban Dew delivers one extra great benefit - she produces high quality results indoors with THC levels around 20%. This makes Durban Dew a unique all-rounder. Her pedigree outdoor heritage makes her tough enough for demanding guerrilla growers and her indoor performance is right up there with your favorite indoor strains.

Available from: dutch-passion.com



New Dutch Passion Strain!



Headline

Scrog

Medicann have combined two of the most potent medicinal plants in the USA and brought them together into this super heavyweight strain.

The OG (original gangster) is from the original OG bred in the San Fernando valley in Los Angeles so its reputation precedes itself and with the genetics of the Sour D being based upon Chemdawg this med strain is extremely potent medicine!

The phenotype Medicann have managed to extract from these two strains is not one that will disappoint you.

Medicinal Uses: Stress Relief, Anger, Insomnia, Appetite stimulant, Nervous Conditions, Alzheimer's, Migraines, Headache, Vomiting, Depression, Chronic Pain.

Available from: medicannseeds.com



New Strain!

Banana Kush

Critical Banana Kush is a new cross of the northern Californian Banana Kush and Critical Bilbao, which hails out of the Basque region of northern Spain. This strain develops a huge fruity tropical profile as well as very large and very sticky buds. A fairly fast flowering time between 50-60 days makes this an ideal beginners strain that produces up to 550g per m². With a THC ratio of 24%+ as well as CBD at 0.5%, the strain has great medicinal potential and is a great pain reliever and is also good for insomnia and depression.

- **Genetics:** Critical Mass x Banana Kush (indica dominant)
- **THC:** 24%+
- **CBD:** 0.5%

Available from: kushcannabisseeds.com

CBD 1000+MG TINCTURE

10ml bottle of organic CBD 1000+mg tincture contains Hemp oil, Fulvic acid, full spectrum CBD/CBDA crude oil paste and peppermint oil. Certificate of analysis available for all of the ingredients. CBD paste contains trace 9-THC 0.129% (this will not have a psychologically effect on you). Cold pressed organic hemp oil contains high level polyunsaturated acids, unsaturated acids, Omega 9, 6 & 3 and traces of vitamins E, D, Potassium, Zinc. Gluten-Free and is suitable for Vegetarians. Products are not genetically modified. Not intended to be used as a medicine. This is a food supplement and should not be used as a substitute for a varied and balanced diet.

How to take: Place under tongue hold for 1 min and swallow.

Available from: wholeplantextract.co.uk



Organic CBD



By STORM

Spirit Vaporiser

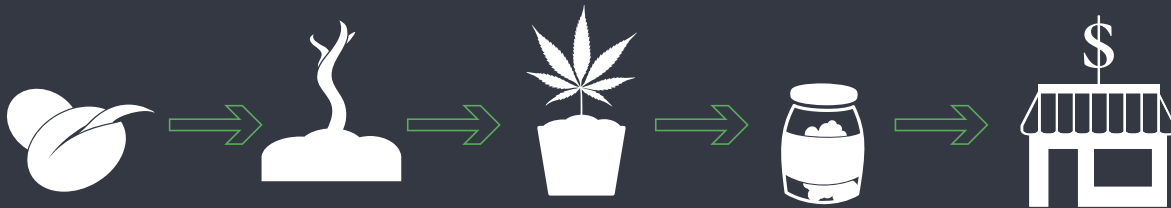
The new Spirit by STORM is suitable for use with herbs, concentrates and resins (resin capsule available separately), Spirit features a magnetic cap with ceramic zirconia mouthpiece and filter, so your hits are now smoother and fresher than ever before.

Spirit brings a new level of quality to the entry-level vaporiser. It has a clever ceramic zirconia filter and mouthpiece, which soaks up most of the heat from the vapour as it travels, making it cooler and fresher. Spirit's high-quality swappable Samsung 18650 battery delivers up to an hour and a half of vaping time.

All of this packed into a small and discreet unit (11cm tall x 3.5cm wide x 2.2cm deep) making Spirit a real hidden gem. With the included concentrate pads for essential oils and waxes, and the optional resin capsule for pressed resins, Spirit is an excellent all-round device that the user can carry anywhere without compromising on quality.

Available from: weedworld.co.uk

Maximise your business profits with us,
from inception to completion.



ASK ABOUT OUR NEXT GENERATION SURVEILLANCE

We have worked in the Cannabis and Hemp industry for over 35 years and are at the forefront of the industry.

Our products have been developed and stabilized over many years and we have launched some ground breaking genetics. We are led by passion to create the perfect products for you and the end user.

This premium flower, *Goliath* and *Critical Honey Kush*, is perfect for the smokeable market. It is remarkable and unlike any other hemp flower in the marketplace.



We have a large library of established stable THC, CBD, CBG, other minor cannabinoids seeds and mother plants. All produced by our breeder, a world leading geneticist.

FROM SEED TO SALE, HELPING TO GROW YOUR BUSINESS SOLUTIONS



We will help you with the overall plan and implementation with the right equipment, design of grow site, nutrients, genetics, through to growing, harvest and end product distribution. 30 years experience implementing industrial scale commercial grows indoors and outdoors. Email our specialist team for more details.

35 YRS
IN CANNA
INDUSTRY



HEMP SEEDS

We can provide high capacity volumes of stable, customised genetics hemp seeds, with low THC and high CBD or CBG, that have high feminization and germination rates.



THC SEEDS

We have the largest cannabis genetic database on the planet. Collected over the past 40 years, from every continent.

- STABLE CERTIFIED hemp starts/plugs, as well as high CBD and CBG hemp flower, with compliant low level THC.
- STABLE FEMINIZED GENETICS. A+ Quality Guaranteed.

For any other business ventures, contact us now!



GENOFARMS.COM | INFO@GENOFARMS.COM



LARGE
YIELDS

medicannseeds.com

Medicann has a wide range of strains that can alleviate many symptoms. For more information on the benefits of our full range of medicinal seeds, visit our website.



medicann

we live, eat and breathe medicinal marijuana

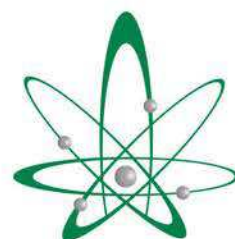
CBG
17%

3/5/10
SEEDS

THC
0.2%

Medi-CBG
FEMINIZED CBG STRAIN

Seeds are for souvenir purposes only and are not to be germinated. Consult your country's laws before purchasing cannabis seeds. Medicann Seeds will not be held responsible for the illegal use of seeds by third parties. This advert is for educational purposes and it is not intended to be a substitute for informed medical advice or care. You should not use any information published by Medicann to diagnose or treat any health problems or illnesses without consulting your pediatrician or family doctor.





How Republicans Want to **LEGALIZE CANNABIS** at the Federal Level in the United States

By Dario Sabaghi

In the United States, Democrats won't be more alone in legalizing cannabis at the federal level. As more states are regulating recreational and medical cannabis, also Republicans have come up with a proposal to regulate the market.

Republican Congresswoman Nancy Mace introduced to the House of Representatives in November 2021 the first Republicans' cannabis bill to regulate cannabis at the federal level.

Entitled "State Reform Act," the bill aims to end federal cannabis prohibition while ensuring that businesses in existing state markets can continue to operate untainted by changing federal rules.

The bill's provisions would decriminalize cannabis removing it from Schedule I of the 1971 Controlled Substances Act. It would institute a 3% federal excise tax on cannabis products to support veterans' programs and fund small businesses. Also, it would enact expungement for those convicted of nonviolent cannabis-related offenses. At the same time, the bill aims to protect military veterans from discrimination in federal hiring from cannabis use and protect children and young adults from consumption and advertising.

By introducing the bill, Mace said that this bill supports veterans, law enforcement, farmers, and businesses and provides good criminal justice reform. "The States Reform Act takes special care to keep Americans and their children safe while ending federal interference with state cannabis laws," Mace said in a statement.

Also, she said that Washington needs to provide a framework that allows states to make their own decisions on cannabis moving forward. Indeed, the State Reform Act leaves the single state to regulate the cannabis industry. This provision is a significant feature of the bill, and it represents one of the main differences from the bills introduced by the Democrats.

The Republican bill focuses on preserving the authority of single states to regulate and even prohibit the possession, use, sale, distribution, manufacturer, delivery, and related activities of cannabis within its borders. Also, the bill reorganizes the regulatory framework over cannabis legislation. Legislators would consider cannabis like alcohol. For this reason, the Treasury Department's Alcohol and Tobacco Tax and Trade Bureau (TTB) would be the chief regulator for this market. Instead, the Food and Drug Administration (FDA) would be limited in its regulatory authority by regulating only medical cannabis. According to the bill, raw cannabis would be considered an agricultural crop and apply to the U.S. Department of Agriculture (USDA) regulation.

The State Reform Act has received positive feedback from the cannabis community in the United States. However, some experts said it hadn't given enough space for social reforms compared with the Republicans' bill.

The Democrats' proposal to end the war on drugs counts on the Marijuana Opportunity Reinvestment and Expungement (MORE) Act, introduced to the House of Representatives by Jerry Nadler and the Senate by Kamala Harris in July 2019, just before becoming the 49th U.S. vice president of the United States in 2020.

The bill consists of funding social justice programs to

rehabilitate communities damaged by the war on drugs. It also expunges cannabis-related convictions and taxes cannabis products at 5%. Furthermore, the MORE Act prohibits the federal government from discriminating against people because of cannabis use, including earned benefits or immigrants at risk of deportation. It would open the door to research, better banking and tax laws, and help fuel economic growth as states seek financial resources.

Both Republicans' and Democrats' proposals aim to decriminalize cannabis at the federal level as a starting point to regulate the market. But while the Republican proposal seeks to leave the single states to choose how to implement the federal cannabis legislation, the MORE Act focuses on social justice programs to reintegrate communities hit by the war on drugs.

Regarding the revenue from cannabis legalization, Republicans propose an excise tax at around 3%, while the MORE Act's tax design starts at 5% and increases to 8% over three years.

Democrats have also recently introduced another proposal to unwind the long-time unsuccessful drug war. Senate Majority Leader Chuck Schumer introduced to Senate in July 2021 a bill to decriminalize cannabis at the federal level. The draft bill, called Cannabis Administration and Opportunity (CAO) Act, would remove cannabis from the Controlled Substances Act. It would also aim to recompense to communities of color and the poor for damage from restrictive federal drug policy through expungement of nonviolent cannabis-related arrests and convictions by allocating new tax revenue (up to 25% on cannabis products) for restorative justice programs intended to lift communities affected by the war on drugs.

Although these bills may divide Republicans and Democrats, the Secure and Fair Enforcement (SAFE) Banking Act, introduced by Representative Ed Perlmutter (Democrat), has received bipartisan support each time submitted to the House of Representatives. The bill aims to ensure access to financial services to cannabis-related businesses and service providers by removing ambiguities at the federal level.

Another point of convergence between Republicans and Democrats has found its place in the Harnessing Opportunities by Pursuing Expungement (HOPE) Act, sponsored by Representatives Dave Joyce (Republican) and Alexandria Ocasio-Cortez (Democrat). The bill aims to encourage states to provide relief to people with nonviolent cannabis convictions through federal grants.

The Republican proposal to legalize cannabis at the federal level is the sign of a new course to debate on how to regulate the market. The State Reform Bill contributes new ideas to the policy discussion on Capitol Hill.

However, the path to legalizing cannabis may risk politicization if the different perspectives between Democrats and Republicans don't find an agreement.

Furthermore, they will need to put on the table a proposal in line with the vision of U.S. President Joe Biden over cannabis. Biden has recently reconsidered the role of cannabis within American society. Although his stance on the topic is far from full legalization, he has taken up the idea of the federal decriminalization of cannabis during his Presidential campaign in 2020.

But to find an efficient balance to regulate recreational cannabis, both Republicans and Democrats should compromise several aspects of the cannabis reform, including taxation, social reforms, and the implementation of federal legislation at the state level.

Why ?



Why not ?



FEM



Hot stuff from the USA!
Bruce Lemon Diesel was created by crossing Lemon OG with Bruce Banner. The best of the nineties meets the twenties!

This strain offers fantastic creative and medical effects. The powerful high is incredibly euphoric, uplifting and relaxed. But Bruce Lemon Diesel is also great for pain relief and is a perfect way to lift your spirits if it's been a tough day. Consistently heavy yielder.

BRUCE LEMON DIESEL

SUPER SATIVA SEED CLUB

198
SEEDBANKS

9199
STRAINS



SATIVAS, INDICAS, AUTOS, HYBRIDS
REGULAR / FEMINIZED
INDOOR / OUTDOOR STRAINS
CBD-RICH MEDICINAL STRAINS
HUGE SELECTION OF SEED BREEDERS
GLOBALLY SOURCED STRAINS

WWW.WEEDWORLD.CO.UK

GET THE LATEST OFFERS: SIGN UP TO THE WEED WORLD NEWSLETTER

FEM



Sorbet Stash is an Indica dominant hybrid that helps relieve stress and chronic pain due to its healing properties.

Flowers in around 8-9 weeks allowing for her to form huge crystallization that allows the buds to become super frosty and ultra-sticky. She will be a leading producer for your garden both indoors and outdoors but especially in greenhouses. An easy growing plant and great for beginners.

SORBET STASH

DNA GENETICS

FEM



Zkittlez Glue is a high powered, high yielding indica dominant strain.

Zkittlez Glue was created by crossing Flour Chasers' Zkittlez with Cali Glue (Gorilla Glue #4 variant) from Cali Weed. Zkittlez Glue will help with someone suffering from high stress levels and depression; it can be used for slight pain relief. This strain is very powerful and not for the faint hearted. She is for the more experienced smoker.

ZKITTLEZ GLUE

FLAVOUR CHASERS

DEAR WW, I WOULD LIKE TO ORDER SOME SEEDS...

You can pay for your order in cash (please use a registered delivery service). Please supply full contact details, in case we need to reach you regarding your order.

NAME

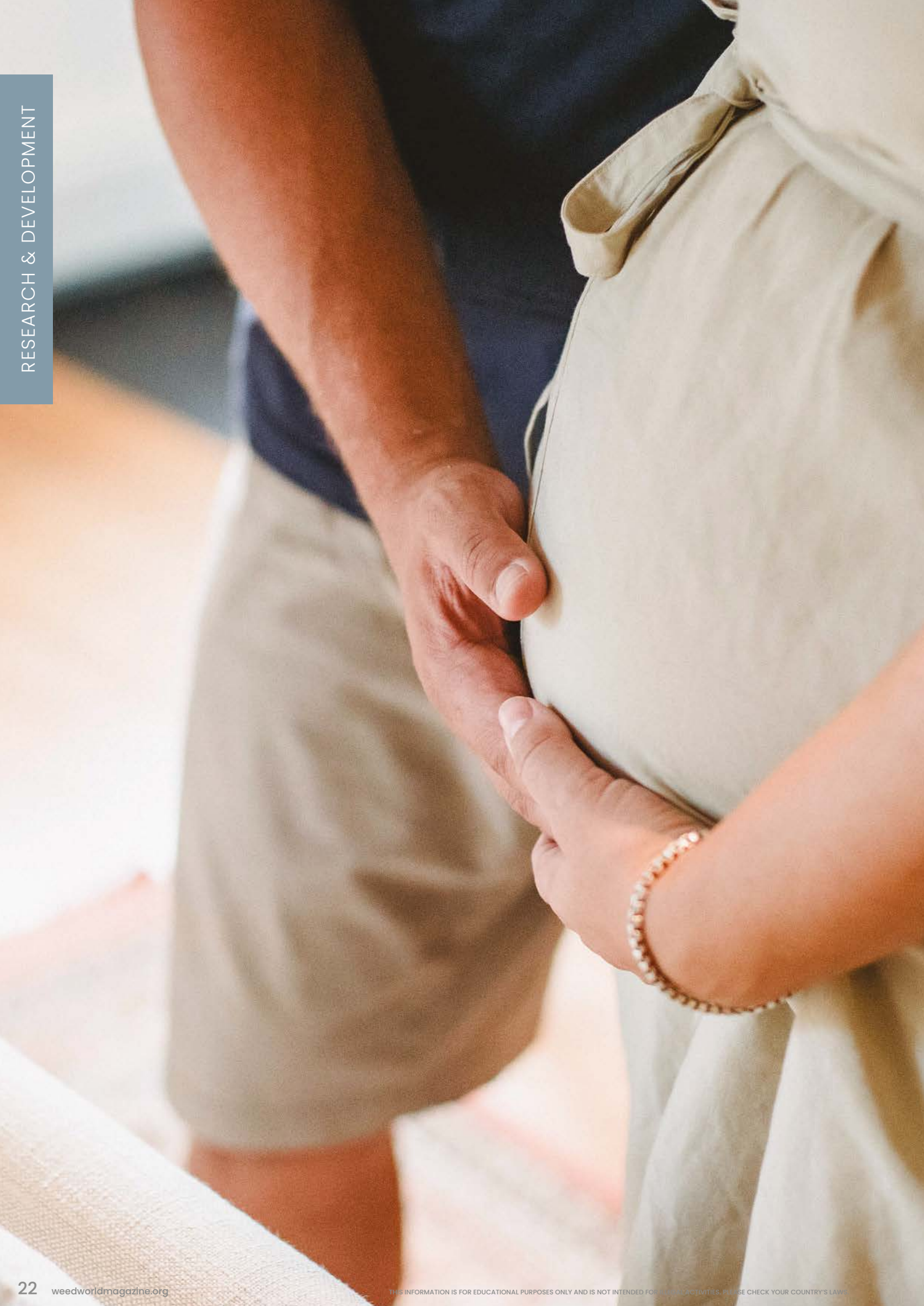
ADDRESS

POSTCODE TEL

EMAIL

Seedbank	Strain	Pack Size	No. of Packs	Reg/Fem	Cost

PLEASE ATTACH A SEPARATE SHEET OF PAPER IF YOU REQUIRE MORE SPACE, OR PHOTOCOPY THIS FORM. CONTACT US FOR POSTAGE COSTS.
PHONE: UK 01974 821 518 US 01144 1974 821 518 | BY EMAIL: ORDERS@WEEDWORLD.CO.UK | BY POST: WEED WORLD, TREGARON, SY25 6PX, UK





Recent Animal Study Implies That THC Could Harm Men's Reproductive Health

By Bethan Bee Rose

Excessive intake of THC-rich cannabis could be inadequate for male reproductive health. This is according to a recently conducted animal study published in the journal *Fertility and Sterility*. [1]

The experiment explored the effects of heavy use of Cannabis on semen volume, testicular atrophy, and hormone production – three factors that are negatively influenced by regular, high doses of the cannabinoid-laden plant.

“This study raises some important concerns, ones that need to be more fully explored,” said the president of the American Society for Reproductive Medicine, Dr. Marcelle Cedars.

Shortly after the study was published, Dr. Cedars stated the importance of investigating the health impacts of medical and recreational legalization, such as the effects on reproduction.

Cannabis' Impact on Male Reproductive Health: How Was the Study Carried Out?

To date, the most potent proof of cannabis-induced changes in male fertility is bundled into the category of semen parameters. The latest *Fertility and Sterility* study expands upon existing knowledge over seven months.

During the study period, researchers monitored reproductive health in a group of male rhesus macaques—an Old-World monkey species—after consuming a THC-containing breakfast cookie daily.

THC, the abbreviation for ‘tetrahydrocannabinol,’ is the leading cannabis chemical responsible for producing psychoactive effects. THC influences (CB1) receptors—most scattered around the brain—that help regulate mood, pain, and various cellular functions and metabolism.

Before the study's completion, the macaque subjects had already fathered offspring. Testicular and reproductive health was monitored closely as the THC dose increased. The posse of macaques, which reside at the Oregon National Primate Research Center, underwent a series of scrotal ultrasounds to determine testicular volume. Additionally, the team of researchers took blood and semen samples.

Based on the results gleaned at the study period's end, the macaques' testicular volume sank by 58%. The researchers also noticed a change in hormone levels, including a reduction in testosterone. Despite a change in semen volume, no significant drop in sperm count was detected.

"In rhesus macaques, chronic exposure to THC resulted in significant dose-response testicular atrophy, increased serum gonadotropin levels, and decreased serum sex steroids, suggestive of primary testicular failure. Further studies are needed to determine if reversal of these observed adverse effects would occur if THC were discontinued and for validation of the findings in a human cohort," concluded the study authors.

Cannabis' Impact on Male Reproductive Health: Previous Research Delivered Similar Findings

This animal study is onto something. After all, past studies have mirrored the recent research effort's findings. For example, a study featured in [2] the journal of Urology observed decreased epididymal sperm concentrations in mature male rats exposed to 16 daily puffs of Cannabis—similar to the daily recreational level in human consumers—over 75 days.

Another study, titled "Cannabis and Male Fertility: A Systematic Review - NCBI," [3] suggested that Cannabis may decrease sperm count and concentration. The investigation in human and animal models implies that these impacts on male reproductive organs may be connected to arrested spermatogenesis.

A separate study highlighted in the National Library of Medicine, titled, "Effects of chronic bhang (cannabis) administration on the reproductive system of male mice." [4] also acknowledged depressed sperm count in adult male mice administered with 3-6 mg/kg of the Cannabis sativa derivative bhang.

Effects of Cannabis Use on Female Reproductive Health and Pregnancy

Despite Cannabis being a federally illegal substance in the United States, it is still considered the most commonly used illicit drug among pregnant females and women of childbearing age. Sweeping legislation—37 U.S. states have passed medical cannabis laws as of February 2022—is likely a contributing factor to both the plant's broad accessibility and perceived safety among women.

However, current research indicates that cannabis consumption may harm female reproductive health. Mainly because its primary active ingredient Δ -9-tetrahydrocannabinol (THC) may cross the placenta, can be detected in breast milk, and could potentially inflict harm on the developing fetus and offspring.

Women who are already pregnant, lactating or trying to conceive a baby have been (advised) to steer clear of cannabis use. Nonetheless, due to a lack of clinical trials and testing into the actual effects of Cannabis on female

reproductive health and pregnancy, many females ignore public health officials and, instead, continue to indulge in Cannabis throughout pregnancy.

This is a worrying prospect. After all, cannabis potency has soared over the last decade. According to a PubMed study, [5] titled, "Examining the profile of high-potency cannabis and its association with severity of cannabis dependence," the average THC concentration of dispensary-sold products may vary from 17.7% to 23.2%. However, it is not uncommon for THC-enriched goods to be as potent as 75.9%.

What's more, a mere 17%-31% of the THC potency contained in legally sold products—such as products that are sold at licensed online dispensaries and state-licensed brick-and-mortar stores—are correctly labeled with their cannabinoid purity.

As more public members give medical Cannabis their seal of approval, it is crucial for health care providers to properly educate their patients on the potentially harmful implications that cannabis use may have on fertility. And the chances of having future offspring.

However, it's important to note that cross-sectional survey data highlighted in a retrospective observational study [6] determined that cannabis consumption, regardless of frequency, does not delay the time to conception.

"...overconsumption may cause irregularities in sperm morphology."

Conclusion

Cannabis may be earning global attention for its appeal and money-making potential in the recreational and medical fields. However, much research is still required to delve deeper into the potential adverse effects, especially in male fertility.

The current research into cannabis' influence on male reproductive health proposes that overconsumption may cause irregularities in sperm morphology. This hinders the fertilizing and capacitation abilities of sperm and minimizes sperm motility and viability.

Although studies in animal models have drawn attention to the potentially harmful implications that cannabis consumption may have on libido, sexual function, and testicular atrophy, there is still a significant lack of research in humans.

Nonetheless, researchers have signified that the green plant may prove successful when used as an experimental remedy to relieve the symptoms of various medical conditions, including dementia, depression, multiple sclerosis, neuropathic pain, Parkinson's disease, and social anxiety disorder (SAD).

References

- 1 <https://www.fertstert.org>
- 2 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7385722/#R9>
- 3 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7385722/#:~:text=In%20human%20and%20animal%20models,be%20linked%20to%20arrested%20spermatogenesis.>
- 4 <https://pubmed.ncbi.nlm.nih.gov/21678546/>
- 5 <https://pubmed.ncbi.nlm.nih.gov/26213314/>
- 6 <https://linkinghub.elsevier.com/retrieve/pii/S0015028218300153>

KUSH

CANNABIS SEEDS



**AUTHENTIC
STRAIN ORIGINS**
Hindu Kush &
North America



FEM
REG

Yield: Medium > 450g

White Kush

White Widow X OG Kush

**BRAND
NEW**

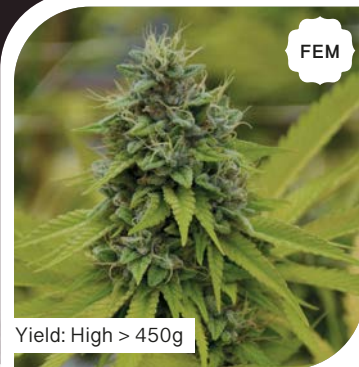


FEM
REG

Yield: High > 450g

Banana Kush

Critical Mass x Banana Kush



FEM

Yield: High > 450g

Cookie Kush

Platinum Girl Scout Cookies X OG Kush



FEM
REG

Yield: High > 450g

Sour Kush CBD

Sour Diesel X OG Kush X Cannatonic



FEM

Yield: High > 450g

Auto Kush

OG Kush X Ruderalis



FEM

Yield: High > 450g

Strawberry Banana Kush

Strawberry Banana X OG Kush

KUSH
CANNABIS
SEEDS.COM

SOUTH AFRICA

Africa's Cannabis is Booming, But is it That 'African'?

By Ray Mwareya

This is the age of African cannabis: the continent unveiled its first SPAC, shipping the world's largest cannabis cargo, dabbling with cannabis medical tissue. But, who owns Africa's cannabis? Is weed-colonialism creeping into Africa?

To answer this, few hints exist among complicated corporate ownerships of Africa's cannabis startups. Canada, in particular, stands out as a chief foreigner "grabber" of the African cannabis scene.

Interesting ownerships

Headlines rang loud that Africa, at last, has launched its first-ever cannabis SPAC stock listing in 2022. A SPAC is a blank cheque company that lists on the stock exchange hoping to be merged with a cash-rich suitor or get bought entirely out.

Cilo Cybin, the cannabis startup in South Africa, launched Africa's first SPAC. On paper, Cilo Cybin is a South African weed company. But Gabriel Theron, its chief executive, says: "We plan to become a multinational. We are registering operations in Panama, the Netherlands, branching out."

It's doubtful that this so-called South African startup will remain South African.

"South Africa and Africa are simply staging grounds to cultivate cannabis. Profits; dominant equity holdings will likely be positioned overseas. This is the same modus operandi of 'oil colonialism,' your BPs, Chevrans, Total, and Exxon Mobil only drilling in Africa but casting profits overseas," says Carter Mavhiza, an independent public accountant.

White cannabis executives in Africa

Another exciting aspect of judging whether cannabis startups in Africa are just African names is looking at who is in cannabis corporate leadership. A cursory glance at Cilo Cybin's advisory board and executive board reveal white males' leading players.

Highlands Cannabis struggles to identify itself

Highlands perfectly sums up this dilemma of whether Africa's cannabis startups are really "African."

Highlands earned plaudits in 2021 for unveiling Africa's first cannabis contract cultivation scheme. Operating from Lesotho, the mountain kingdom that is Africa's number 1 medical cannabis grower, Highlands fumbles when explaining its proper ownership structure, which has been characterized by confusing mergers, de-mergers, and rebranding.

Highlands, formerly Canopy Africa (supposedly weaned from Canopy Growth, Canada). When questioned in a news article in January 2022, Highlands struggled to describe itself as an "independent entity."

Its director, Mark Corbett, was at pains to explain why it has been on a name-changing spree.

"Highlands Investments was formerly Canopy Growth Africa; however, it is no longer part of The Canopy Group. In 2017, Canopy Growth exited its operations in South Africa and Lesotho as part of a strategic review of its businesses. This resulted in a transfer of ownership of all of its African operations to Highlands Investments in April 2020," Corbett told a reporter.

But in all essence, Highlands is arguably a Canadian company, not African, notwithstanding its past name, Canopy Africa.

"Highlands is an interesting analogy of what a Canadian company that wants to be seen as African," says Mavhiza, the cannabis analyst, "Canadian weed colonialism in Africa is solid via meandering name changes, corporate mergers, buyouts, and the likes."

Africa shipped Africa's biggest cannabis cargo. Really?

In August, Africa was bathed in illustrious news that the world's largest-ever shipment of cannabis, 8.5 tons, went from Africa to Macedonia, Europe. The star of the moment was non-other than Highlands.

"The exporter, Highlands, cannot be credibly called African. Highlands is a Canadian weed company operating in Africa. Africa is just a farming ground for cannabis, for now," says Dennis Juru, president of The South Africa International Cross-border Traders Association.

Africa governments enabling cannabis "colonialism"?

Observers say cries of cannabis colonialism creeping into Africa must be tempered with the realization that it is African governments themselves that are rushing to dole out cannabis licenses without empowering local growers first.

The Democratic Republic of Congo is an example of a country where legalization and lack of capacity mean the state prefers foreign cannabis companies to snap up all available licenses. 57 cannabis licenses were doled out in Zimbabwe in 2021 to players mainly from Germany, Canada, and Switzerland. A march broke out in South Africa in 2020, as Black farmers were furious, railed that regulators have corruptly given cannabis licenses primarily to white business persons.

"The history of cannabis in Africa is sensitive because it rings memories of the past agriculture colonial takeover of the continent's lands," Shamiso Mupara, an ecologist and delegate to Cop 26 in Scotland last year.

"There has been a spree, unplanned to legalize cannabis on a whim across Africa and dish out licenses in countries that, honestly speaking, are poorly ready to cultivate, and ship out cannabis in a manner that empowers local citizens first."

NEW

BLUEBERRY
CRYSTAL GELATO

TRIPPY PEBBLES

NEW

BIGHEAD

SEEDS.COM

CURATORS OF SUPERIOR GENETICS

AUTO
VERSION
OUT NOW



Julie's Cookies

AUTO
VERSION
OUT NOW



Trippy Gorilla

AUTO
VERSION
OUT NOW



Gorilla Cookies

AUTO
VERSION
OUT NOW

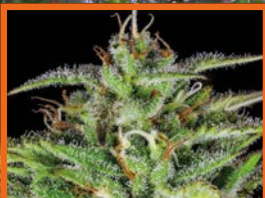


Crystal Gelato

AUTO
VERSION
OUT NOW



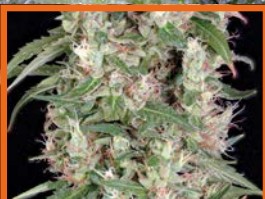
Dogstar Dawg



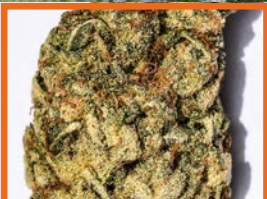
Sherbert Dab



Skywalker Ghost Kush



Granddaddy Banner



Wedding Cake



Do-Si-Dos



Buzz 'N' Smiles
Super Lemon Haze



Dos Gelato



Watermelon
Zkittlez

NEW
STRAINS
COMING SOON

NEWS | Israel

By Ziv Genesove

Israel to Look into Legalizing CBD

The "Fines Law" will expire in less than a month, the temporary order enacted for 3 years after a public protest in 2019. Before enforcement against cannabis consumption returns to normal, the government intends to approve a model in which self-use of cannabis would be an administrative offense and would be subject to monetary fines only, without the conditions set out in the current model.

Next month, the government is expected to approve draft regulations under which self-use cannabis offenses will become administrative offenses (instead of criminal) without registration in the criminal record - similar to most traffic offenses.

The decision comes because the interim provision from 2019 ("Erdan Outline" or "The Fines Law"), which was set for 3 years, is about to expire on 1.4.22. After receiving comments from the public (until 2.3), during the next month (March 2022), the proposal for approval will come up in the Constitution, Law and Justice Committee, where it is expected to receive the committee's approval unless difficulties are raised by the coalition parties such as the Islamic "Ra'am" Party. They have stated in the past their stand against easing local cannabis laws.

The current situation (according to the "Erdan outline"):

- When a person is caught possessing cannabis for personal use (up to 15 grams) for the first and second times, the penalty for this is a fine offense - The amount of the fine: 1,000 NIS and 2,000 NIS, respectively.
- For the third time, the case can be closed in an arrangement with the State Attorney's Office.
- From the fourth time onwards, an indictment will be filed.
- The law excludes anyone with a criminal record. The law also excludes those who have committed a related offense, such as "interfering with a police officer in performing his duties."

Status after the planned change:

- Cannabis consumers will not be prosecuted at all, except in exceptional cases.
- The exclusion of people with a criminal record will be abolished.
- The distinction between a first offense and additional offenses will be eliminated.
- The fine will be limited to 1,000 NIS.
- Soldiers, police officers, prison guards, and minors will be excluded from the arrangement.

It should be noted that an "administrative offense" is still regarded as a criminal offense. Still, its treatment is "more forgiving" and allows for the imposition of fines instead of an indictment.

As you may recall, an inter-ministerial team submitted

its recommendations in November 2020, suggesting that the cannabis market be fully regulated (legalized). However, as stated, the government is subject to the demands of the "Ra'am" Party; therefore, this specific initiative cannot be promoted.

Israeli "Cannabis" Magazine, the existing partial indictment model has resulted in a 90% drop in the opening of criminal records for self-use of cannabis as well as a 33% drop in indictments for this offense. Around the same time, there was a 77% increase in the number of fines for self-use of cannabis between 2019 and 2021, which means that, overall, enforcement as a whole has not decreased significantly.

Cannabis Farm Manager Suspected of Stealing

As of the end of January 2022, there were approximately 106,000 medical cannabis license holders in Israel - a decrease of more than 3,000 from the previous month and a sharp reversal in the rate introduced last year. What is the reason for the sudden change?

During January 2022, the exact number of citizens carrying a medical cannabis license in Israel dropped to 106,107 - a sharp decrease of more than 3,000 patients within a month compared to the peak reached in December 2021, when it stood at 109,352, according to the monthly status report.

This figure is a setback in the number of medical cannabis license holders in the country, which increased throughout the year 2021 by about 3,000 patients per month. It symbolizes that there are patients who have not received a license and those who have lost it without the ability to renew it.

The reasons for reversing the trend and the sharp decline in the number of patients are probably twofold: The first is a bureaucratic malfunction in the medical cannabis unit ("Yakar") and "Natali" company, which provides it with customer services and document management. This malfunction led to the disapproval of licenses for more than 2,000 patients throughout the month - licenses that the "Yakar" doctors issue based on physician recommendations.

The second reason is the ban on issuing licenses imposed by the director of the "Yakar," Yuval Landshpet, on leading certified physicians in Israel, including Dr. Lavia Tamir, Dr. Yaakov Vogelmann, and others. They together are responsible for tens of thousands of patients. For example, Dr. Vogelmann was given a "penalty" according to which he could not issue medical cannabis licenses at all, including not to about 8,000 patients who have received the license previously and are now left unanswered.

Along with the decrease in the number of cannabis patients in Israel, the total amount of medical cannabis distributed in the country also decreased - from 4.2 tonnes in December 2021 to "only" 4.1 tonnes in January 2022. According to the data, 90% of the patients consume cannabis in the form of inflorescences and only 10% in the form of oil.

According to the data, 24% of the patients hold a license for 30 grams per month, 21.4% with 40 grams per month, 20.2% with 20 grams, and 15.4% with 50 grams. An interesting statistic is that 1,784 patients receive more than 110 grams a month.

GENOFARM®

ZERO FEMINIZED

**< 0.2% THC
> 12% CBD**

**SHOP NOW AT
[GENOFARM.COM](https://genofarm.com)**



**ADVISEMENT FOR
CERTIFIED FARMS**

hi@genofarm.com



CANNABISSISSIPPI

By Psy-23

As the evidence in support of utilizing cannabis to treat a range of conditions continues to grow, it's no surprise to see that more and more US states are now leaning towards changes in legislation.

While it may have taken what seemed like forever to see the first steps towards the end of prohibition (which is even more likely to come once the medical applications and benefits are more widely recognized) the movement continues apace. The vast majority of reports from states who have already taken the leap seem to be overwhelmingly positive.

Due to the vast differences between each state and its independently defined laws, there are always challenges to face. Some people have suggested that certain states are far less likely to see this as a welcome change simply because they are recognized as being far more conservative in terms of approaching anything which has previously held extremely negative perceptions. Some states are more deeply religious than others, while some states are led by politicians with strongly-held beliefs that are not easy to change. All-in-all, it can be quite the minefield when it comes to traversing what is and isn't legal from one place to another.

In February 2022, in what came as a pleasant surprise to many, Mississippi became the 37th state to legalize medical marijuana for people with debilitating conditions.

This new piece of legislation, known as the Mississippi Medical Cannabis Act, allows qualifying patients to be prescribed medical cannabis as a form of treatment for a number of diagnoses including: cancer, HIV/AIDS, ALS, Sickle-Cell Anemia, PTSD, chronic pain and a range of other life-changing and life-limiting conditions. With estimates indicating that the state has almost 50% of its population aligned with conservative views (and less than 20% seeing themselves as having more liberal beliefs) this is an incredibly positive move which could pave the way for states with similar political leanings to follow suit.

At the time of writing, it is believed that patients who are deemed likely to benefit will be offered a full range of products including topical creams, infused drinks, tinctures and oils, as well as cannabis extracts and flower. While some people remain skeptical about the potential of cannabis to help people to heal it is hoped that this brings a better chance for many people to establish a better standard of living day-to-day. A spokesperson from the Mississippi Medical Marijuana Association, a group who were pivotal in the push for change, acknowledged that those who are able to receive a prescription are likely to get a quality of life back which had been cruelly taken away previously. If you or anyone you know or love have been ravaged by an illness, you'll understand why this is something which cannot be undervalued.

Despite people's doubts that this might ever actually come

to fruition (thanks in no small part to previous denials of the bill), on the 16th February of 2022, Republican Gov. Tate Reeves signed-off on the new piece of legislation which meant that the new policy became law with immediate effect. It may take some time before businesses come into operation, however this is essentially a green light for the future of medical marijuana in Mississippi. While this is a huge step forward for medical patients in the state, a statement by Gov. Reeves indicated that it is unlikely that there will be a further change in policy linked to a move towards recreational use any time soon. In a statement made on Twitter he commented that while "there are individuals in our state who could do significantly better if they had access to medically prescribed doses of cannabis, [...] there are also those who really want a recreational marijuana program that could lead to more people smoking and less people working, with all the societal and family ills that that bring." It's a shame to see that even when we are taking steps forward there are people who are still so stuck in the past. Surely we don't still live in a world where people truly believe that people are unable to function like normal human beings simply because they choose to consume cannabis? Do the policy makers think that medical patients are any different to regular people? All of the benefits of cannabis are universal and this inferred distinction between 'street weed' and 'medical marijuana' is one of the main sticking points for the more conservative states.

"It's a shame to see that even when we are taking steps forward there are people who are still so stuck in the past."

Influenced by these same concerns, the bill actually places limits on how much cannabis a patient can receive on a monthly and daily basis. Original plans were intended to limit possession to 5 ounces per calendar month but this was reduced to 3.5 grams per day (6 days per week) with a maximum of 3 ounces allowed to be purchased by any one individual. While this

is unlikely to cause too many issues for the vast majority of individuals, there are likely to be some people who are frustrated by this limitation. When a patient has to adapt their dosage to particular strains or has symptoms that can change and vary day-to-day there needs to be more flexibility. In what some may perceive as an insult to cannabis users, Reeves explained this decision with a comment that this reduction will lead to "hundreds of millions of fewer joints on the streets". Furthermore, the new law has placed prohibitions on any form of economic rewards or incentives for this fledgling industry and while it is likely to be a number of months before the first dispensaries are stocked and ready to open to the public there are some concerns that it will be more difficult for independent businesses to get up-and-running in the short term.

Regardless of the unlikelihood that recreational cannabis will be making waves in Mississippi any time in the near future, this is still a significant moment for the state's citizens. We can only hope that the remaining states are keeping a close eye on how things are continuing to move forward across the US and the rest of the world and that this progress continues to inspire others to follow suit. In the meanwhile, we wish the best to all those who can now plan to legally alleviate their suffering and we hope that cannabis can provide you with some well-deserved respite.



Mamacita's Cookies
MINISTRY OF CANNABIS



**MANDARIN
GELATO**



**MARS
MELLOW**



**MAMACITA'S
COOKIES**



GOD'S GLUE

OUR SEEDS YOUR PLEASURE

5+1 10+2 25+5

Auto Blueberry Domina
Auto Mandarin Haze
Auto Sweet Donkey
Big Bud XXL
Mars Mellow
Zensation

**NEW
PROMO!**

MINISTRY.com
OF CANNABIS

Distributed
IN UK BY



WWW.MINISTRYOFCANNABIS.COM





Will the Delta-8 Phenomenon Last?

Written by Paul James

At this point, everyone's heard of delta-8 THC (or delta-8-tetrahydrocannabinol). Since its conception, the cannabinoid has only skyrocketed in popularity. Seemingly as a legal loophole to getting high even in places where recreational cannabis remains illegal.

If cannabis were federally legal in the United States, there would be no need to have delta-8 THC. However, with so many states fighting for regulations, it is no surprise that the delta-8 phenomenon may not last. In fact, in retrospect, it probably should've never even existed.

Throughout this article, we will take a deeper look into delta-8 and its legal status. Afterward, we'll discuss why the phenomenon likely won't last and what delta-8 lovers can expect from here on out.

What is Delta-8 THC?

Delta-8 THC is a cannabinoid found in the cannabis plant that has a very similar chemical structure to its cousin delta-9 THC. Just like delta-9 THC, delta-8 binds to cannabinoid type 1 receptors (CB1) in the brain, which causes psychoactivity (or a "high").¹

However, unlike delta-9, delta-8 is not a naturally occurring cannabinoid. It's a synthetic cannabinoid made from hemp-derived cannabidiol (CBD). It requires a simple process to dissolve pure CBD into a solvent and mix it with an acid catalyst.

Due to this process, delta-8 isn't as strong as delta-9. Some estimate that it's about 66% vital.

But since it's made from hemp (cannabis containing less than 0.3% delta-9-THC) rather than marijuana (cannabis containing more than 0.3% delta-9-THC), it's technically legal across the United States. This loophole has allowed many products to hit the market, from tinctures to gummies to vapes.

Yet, as you can imagine, there's a huge legal battle taking place in several states seeking to either ban or regulate the substance.

While a delta-8 high isn't much different from a delta-9, some reports claim it provides a "milder high" with less

paranoia, anxiety, and drowsiness. However, there are no studies to confirm the weight of these claims.

Delta-8 THC Safety Concerns

Since delta-8 THC is made using a chemical process, consumers primarily put their safety and wellness into specific brands. Like CBD, there are plenty of high-quality products and trustworthy brands on the market. However, like CBD, several less reputable brands are trying to make a quick buck off this industry and potentially sell harmful products.

Between December 2020 and July 2021, the Food & Drug Administration (FDA) received 22 reports concerning delta-8 THC, 14 of which resulted in hospitalization following ingestion. Of the 22 patients, 19 experienced adverse effects, including vomiting, hallucinations, trouble standing up, and loss of consciousness.²

Between January 2018 and July 2021, national poison control had received 661 exposure reports concerning delta-8 THC products. Of those:

- 41% had unintentional exposure to delta-8, and of that figure, 77% had affected patients less than 18 years of age.
- 18% required hospitalizations, including some children, put into intensive care units (ICUs).

Most reports listed here concern unintentional dosing or unexpected effects (i.e., receiving an overwhelming high from the product) rather than chemical problems. Similar reports have also been reported in the recreational cannabis space.³

The Legal Issue of Delta-8 THC

As already mentioned, delta-8 THC is technically legal wherever CBD and other hemp products are legal. In turn, the substance is federally legal in the United States.

However, knowing that it causes psychoactivity and concerns with safety reports, as discussed above, many states are opting to regulate the substance or outright ban it.

The most recent of these legal controversies occurred in Texas, where some lawmakers try to make delta-8 a Schedule I substance. As of this writing, state district court Judge Jan Soifer has put a temporary injunction on this concern and will resume the matter at a later date.⁴

Still, some states have already taken steps to ban it, including Alaska, Arizona, Arkansas, Colorado, Delaware, Idaho, Iowa, Louisiana, Montana, New York, North Dakota, Rhode Island, Vermont, and Utah.

Some states have unclear laws concerning delta-8, including Kentucky, Mississippi, and Washington. Like Nevada and Michigan, other states are regulating it similarly

to recreational cannabis - so you can only purchase it in licensed dispensaries.

In turn, delta-8 remains legal and unregulated in about 30 states. However, due to all the confusion surrounding this cannabinoid, laws constantly change or contradict themselves. This not only makes for an unstable market, but it also puts many regular people at criminal risk.

How Long Will Delta-8 THC Last?

Still, no matter what laws are procured concerning delta-8, it doesn't seem to have slowed down its popularity. Some reports estimate its market value at around \$200 million to \$500 million per kilogram of delta-8 extract. But since most figures bunch it in with the CBD market, it's difficult to determine how much it's worth.⁵

The popularity of delta-8 is primarily because it's a legal way to get high in places where cannabis remains illegal. You can get all the legal highs you want at your local dispensary. However, in areas where recreational cannabis is legal, there's no reason to purchase a delta-8 product.

With that in mind, it's hard to believe the delta-8 industry will last a long time. If the United States were to legalize cannabis tomorrow federally, it's likely the delta-8 industry would be ruined. It's safe to say that most consumers would prefer to purchase naturally occurring cannabinoids rather than those made in a laboratory. Beyond the safety reasons, it's also a cheaper option.

Due to this, some may argue that the current legal battles both for and against delta-8 are futile. It takes away from the bigger picture: legalizing cannabis altogether simply. It continues to propel the stigma against cannabis psychoactivity, its medical value, and the century-long prohibition that's continued in the U.S.

If America would simply get off its ass and give nearly 70% of people what they want (legal cannabis), we wouldn't have to waste our money and time arguing over delta-8.⁶

Reference Sources

1 Clinical Pharmacology & Therapeutics: Delta-8- and delta-9-tetrahydrocannabinol; Comparison in man by oral and intravenous administration: <https://ascpt.onlinelibrary.wiley.com/doi/abs/10.1002/cpt.1973143353>

2 Food & Drug Administration (FDA): 5 Things to Know About Delta-8 Tetrahydrocannabinol - Delta-8 THC: <https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>

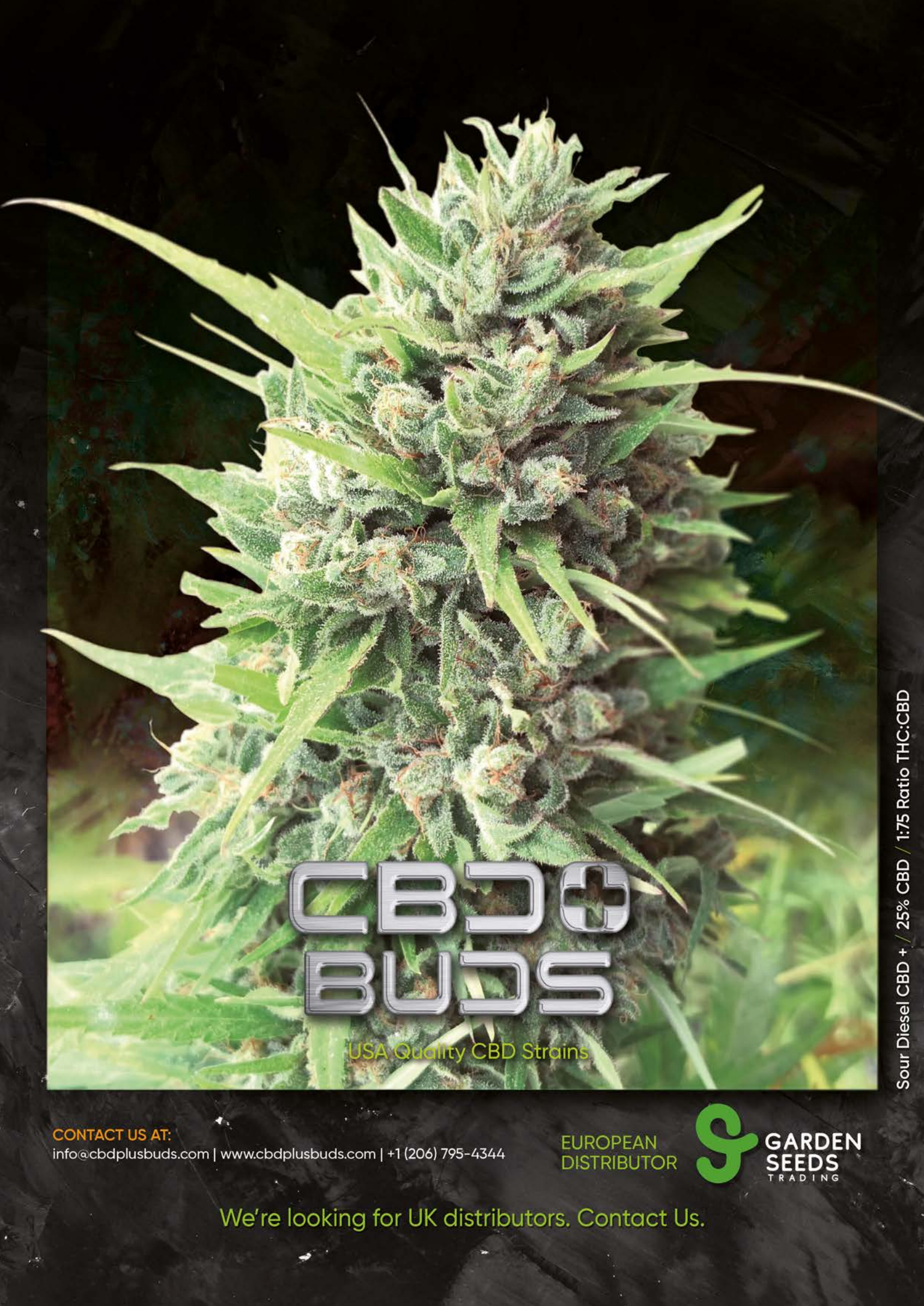
3 StatPearls: Marijuana Toxicity: <https://www.ncbi.nlm.nih.gov/books/NBK430823/>

4 The Texas Tribune: Delta-8 is legal in Texas - for now - after Travis County judge blocks state from criminalizing the cannabis extract: <https://www.texastribune.org/2021/11/08/delta-8-texas-legal-lawsuit/>

5 MJBizDaily: MJBizCon speaker highlights dangers of delta-8 THC, touts benefits: <https://mjbizdaily.com/mjbizcon-speaker-highlights-dangers-of-delta-8-thc-touts-benefits/>

6 Gallup: Support for Legal Marijuana Inches Up to New High of 68%: <https://news.gallup.com/poll/323582/support-legal-marijuana-inches-new-high.aspx>

If the United States were to legalize cannabis tomorrow federally, it's likely the delta-8 industry would be ruined. It's safe to say that most consumers would prefer to purchase naturally occurring cannabinoids rather than those made in a laboratory.



CBD+ BUDDS

USA Quality CBD Strains

CONTACT US AT:

info@cbdplusbuds.com | www.cbdplusbuds.com | +1 (206) 795-4344

EUROPEAN
DISTRIBUTOR



**GARDEN
SEEDS**
TRADING

We're looking for UK distributors. Contact Us.

Sour Diesel CBD + / 25% CBD / 1:75 Ratio THC:CBD

UNLOCKING CBN

Words By
Bethan Bee Rose





Californian Scientists Unlock the Power of Using Cannabinol (CBN) to Protect Against Neurodegenerative Diseases

Cannabis has long been touted as a neuroprotective agent—just one medical claim that contributed to the global medical cannabis sector ballooning to USD \$16.47 billion in 2021 (GBP £12.2 billion)—and new research from the Salk Institute in California supports this claim.

According to Senior author Professor Pamela Maher, there's a good chance that the plant could play a pivotal role in counteracting the development of neurodegenerative diseases, such as Alzheimer's and Parkinson's.

The research is interesting because most previous medical cannabis investigations have focused on the active substance's THC (delta-9 tetrahydrocannabinol) and CBD (cannabidiol). In contrast, this new study homes in on the neuroprotective qualities of CBN (cannabinol).

"We've found CBN protects neurons from oxidative stress and cell death - two of the major contributors to Alzheimer's," said Maher. Adding that "this discovery could one day lead to the development of new therapeutics for treating this disease and other neurodegenerative disorders – like Parkinson's disease."

Californian Researchers Have Pinpointed the Neuroprotective Mechanism of CBN

Cannabis consumers who have already tried CBN may describe it as a weaker version of THC. The compound is mildly psychoactive, similar to THC but much less strictly regulated. Knowledge of the cannabinoid is limited at the current time, meaning that the therapeutic possibilities are not entirely clear.

Notwithstanding the lack of available research into CBN's remedial benefits, the Salk Institute research group was previously victorious in establishing the cannabinoid's neuroprotective properties.

Even more impressive is that the researchers now believe that they have worked out the mechanism by which CBN may safeguard the brain from damage. Laboratory trials have already confirmed CBN's ability to stop oxytosis, a type of cell death that occurs when the antioxidant called 'glutathione' is lost.

For the most recent study, CBN was administered directly to nerve cells before the scientists purposely prompted oxytosis. Consequently, oxidation resulted in the neurons assuming a "curled" shape – a reaction that usually happens to inflicted neurons in the brains of Alzheimer's patients.

CBN Assisted with Mitochondrial Functioning Without Activating Cannabinoid Receptors

The ongoing analysis illustrates that CBN may ameliorate the mitochondria, recognized as the hub from which cells

procure their power. After being penetrated by CBN, the cells did not lose their healthy structure.

Professor Maher noted that thanks to the cannabis compound's "protective effects," his team succeeded in clearly demonstrating maintenance of mitochondrial function. The cell shape remained normal, and functioning was undisturbed.

"Mitochondrial dysfunction is implicated in changes in various tissues – not just in the brain and aging. So the fact this compound can maintain mitochondrial function suggests it could have more benefits beyond the context of Alzheimer's disease," Prof. Maher continued.

Furthermore, the study spotlighted CBN's ability to prevent neurodegeneration without causing mind-altering effects in users. How? Because the cannabinoid is capable of working without actually activating any cannabinoid receptors.

"CBN is not a controlled substance like THC – the psychotropic compound in cannabis," said the study's first author, Dr. Zhibin Liang. "Evidence has shown CBN is safe in animals and humans. Because CBN works independently of cannabinoid receptors, it could also work in a wide variety of cells with ample therapeutic potential."

Dr. Liang urges researchers to carry out additional investigations into CBN and various other cannabinoids that have not yet been studied in-depth for their potential neuroprotective benefits. The study's findings will likely create a ripple effect across the scientific industry, which is starting to emphasize new treatment options for neurodegenerative diseases.

Prof. Maher and his assistants are striving to replicate the results in a preclinical mouse model.

Research from 2021 Discovered the Neuroprotective Potential of Cannabinoids

Last year, a distinct investigative initiative sought to understand the neuroprotective potential of cannabinoids. The results were published in the journal *Molecules* by the Multidisciplinary Digital Publishing Institute (MDPI). As per the findings, CBD demonstrated an ability to adapt during the treatment phase with the phytocannabinoid. This successfully boosted neurogenesis in tested models.

Additionally, the study authors claimed that CBD's well-known anti-inflammatory and anxiolytic properties offer benefits when used in pathologies like AD and PD.

A separate 2021 study titled "Cannabinoid agonist WIN-55,212-2 partially restores neurogenesis in the aged rat brain". This study acknowledged the neuroprotective qualities of certain synthetic compounds. The research showed that 'WIN-55212-2' could effectively influence CB1 and CB2 receptors.

The chemical 'WIN-55212-2' is an aminoalkylindole derivative that can create a similar feeling to cannabinoids like tetrahydrocannabinol (THC), maintaining a unique chemical composition to that of THC. However, it remains uncertain what specific effects this compound may produce in cases of pathological conditions.

Conversely, the study also suggested that the novel cannabigerol derivative VCE-003.2 increases the rate of neuronal progenitor cell survival and provides symptomatic relief in (murine models) of Huntington's disease.

Furthermore, a chemical belonging to the aminoalkylindole family that functions as a potent and selective CB2 agonist, AM-12441, demonstrated a more focused outcome in cases of neurogenesis.

Decades-old Rodent Study Reaches Similar Conclusion

An older study was carried out in 2003, titled "Cannabinoids inhibit neurodegeneration in models of multiple sclerosis (MS)." Determined that the cannabinoid system regulates EAE-induced neurodegeneration.

The study focused on mice that were deficient in CB1 receptors. All mice suffered from an animal model of MS – experimental allergic encephalomyelitis (EAE). MS is a type of neurodegenerative disease spurred on by an inflammatory attack of the CNS.

Due to their deficiency, the mice struggled to endure toxic attacks and inflammation, leading to neurodegeneration after an immune attack (EAE). Fortunately, the findings spotlight the neuroprotective potential of exogenous CB1 agonists.

To date, the treatment options for MS remain limited, thus reinforcing the importance of exploring new treatments. Since the cannabinoid system may prove neuroprotective during EAE, cannabis could hold promise as a future choice of therapy.

Summary

A growing body of research illustrates that cannabinoids possess particular neuroprotection applications for mental and motor dysfunction diseases. This is categorized under the "neuroprotective" umbrella term.

However, it is not entirely clear if all cannabinoids (over 100 have been identified) can reduce neurological damage.

The future of cannabis for neurology depends on innovations in research and development (R&D) strategies. Aside from focusing on the well-known non-psychoactive compound CBD, R&D experts should also consider looking into its psychotropic counterpart, THC (tetrahydrocannabinol).

THC is a psychoactive constituent of cannabis renowned for binding with the CB1 receptor inside the brain. On the other hand, as per the research contained in this article, there is a greater chance of the non-psychoactive cannabinoid CBD interacting with the CB2 receptor and exerting neurogenesis-related activities.

Nonetheless, a 2019 study clarified that cannabis-based remedies, including nabiximols and the mind-bending substance THC, boast therapeutic clout for fighting against neurological symptoms. Future research efforts will tell us more.

GET READY FOR SEEDS SEASON, WE ARE READY FOR YOU!

30 years experience and passion in seed breeding
and growing Cannabis Hemp.

Why fly coach when you can travel first class?



MED/HIGH CBD

YIELD PER PLANT: UP TO 7.5LBS

GERMINATION 99% | FEMINIZATION RATE: 99.9%



MED/HIGH CBD

YIELD PER PLANT: UP TO 5.5LBS

GERMINATION 97% | FEMINIZATION RATE: 99.9%



MED/HIGH CBD

YIELD PER PLANT: UP TO 6LBS

GERMINATION 96% | FEMINIZATION RATE: 99.9%



MED/HIGH CBD

YIELD PER PLANT: UP TO 6LBS

GERMINATION 99% | FEMINIZATION RATE: 99.9%



MED/HIGH CBD

YIELD PER PLANT: UP TO 7.5LBS

GERMINATION 96% | FEMINIZATION RATE: 99.9%



15-17% CBG

YIELD PER PLANT: UP TO 1LB

GERMINATION 99% | FEMINIZATION RATE: 99.9%

AOSCA CERTIFIED GENETICS

Our genetics are certified through GCIA (a member of AOSCA). The purpose of seed certification is to preserve the genetic purity and varietal identity.

- PLUGS & STARTS AVAILABLE
- CONSULTING SERVICES

We can provide third party Certificate of Analysis (COA's), Germination, Feminization reports upon request. Results may vary based on farmer and farming conditions.

SUNBELTSEEDS.COM

INFO@SUNBELTSEEDS.COM

CERTIFIED GENETICS
ARE THE KEY

STUDY

Cannabis Could Make Sexual Experiences More Enjoyable

By Bethan Bee Rose



Sensual music, massage oil, and erotic talk aren't the only things that can help to turn up the heat in the bedroom, with a team of Spanish researchers hypothesizing that marijuana consumption could ignite new realms of sexual pleasure.

The investigative effort [1], conducted by researchers from the University of Almeria, involved surveying a small group of people about their sex lives. Study subjects—all of whom were aged 18-30—were either cannabis users, alcohol consumers, or neither.

Once all 274 responses were in, the Spanish group discovered that people who only enjoyed cannabis experienced heightened orgasms and increased arousal levels than the survey respondents who only consumed alcohol or nothing at all.

Arousal and Orgasms Higher in Cannabis Consumers Than Non-users

To conduct their study, 89 male and 185 female volunteers were invited to provide their self-reported experiences after using cannabis, alcohol, or neither. Diabetes patients, users of other substances, and people with depression were denied access to participate in the study.

All 274 participants answered survey questions on their age, cannabis and alcohol consumption, education level, sexual function, and sexual orientation.

The feedback revealed that while cannabis boosted overall arousal and orgasm-related pleasure, sexual desire did not necessarily increase post-consumption, nor did it increase compared to non-users.

It should be noted that the study was somewhat limited. Due to the small scale of the investigation, the study authors pointed out that the results "should be interpreted cautiously."

Additionally, the Spanish university group touched upon the fact that the survey was short-term, and all answers were self-reported. With that being said, each study subject's assessment and honesty are two factors that may have potentially skewed the results.

Previous Studies Delivered Similar Insights Into Cannabis' Impact on Sex Life

Other researchers will surely be pleased to learn of the University of Almeria's study. After all, many research teams have also studied the subject, with similar results.

For example, a study featured in the Journal of Sexual Medicine [2] linked an active sex life to frequent cannabis use last year. Internal medicine physician Dr. Jordan Tishler drew up these findings. He concluded after assessing data of almost 60,000 people that was pulled from the National Survey of Family Growth.

Tishler, who also serves as the president of the Association of Cannabis Specialists, previously divulged to Insider reporters that he is often plagued with queries from patients who want to learn about incorporating cannabis into their sex lives.

According to the physician, most of his curious patients complain about anxiety, low arousal, diminished sex drive, painful penetration, and struggles to achieve orgasm.

More research published in the Journal of Sex Medicine in 2020 suggested that "increasing frequency of cannabis use is associated with improved sexual function and increased satisfaction, orgasm, and sexual desire."

Close analysis of online results from 452 females led to these findings. All women chose to opt-in for a Female Sexual Function Index (FSFI) survey after receiving an invitation while visiting specific cannabis retail dispensaries.

The survey assessed sexual behavior over the last four weeks by scoring six particular points of interest: arousal, desire, lubrication, orgasm, pain, and satisfaction.

"To our knowledge, this study is the first to use a validated questionnaire to assess the association between female sexual function and aspects of cannabis use including frequency, chemovar, and indication," wrote the study authors. [3]

Typically, higher FSFI scores illustrate improved sexual function, whereas scores on the lower side tell of sexual dysfunction. Regarding comparing cannabis consumption to each study subject's FSFI score, the educators noticed that more regular consumption contributed to reduced rates of sexual dysfunction.

"For each additional step of cannabis use intensity (i.e., times per week), the odds of reporting female sexual dysfunction declined by 21%," the report noted.

Sexual Function is Impacted by Cannabinoids and Neurotransmitters

To contemplate cannabis' potential for improving intimate moments in the sack, we must first consider the science behind the theories. To do this, it's essential to acknowledge how cannabis works inside the human body.

In simple terms, the plant's active chemical compounds, A.K.A. "cannabinoids," indirectly and directly trigger cannabinoid receptors inside the body's endocannabinoid system (E.C.S.).

There are two primary cannabinoid receptors found inside the E.C.S. – CB1, and CB2. In terms of sexual function, we will focus on CB1, a presynaptic receptor that inhibits neurotransmitter release once activated.

"To really contemplate cannabis' potential for improving intimate moments in the sack, we must first consider the science behind the theories."

A study published in The Journal of Sexual Medicine, titled "Pathways of sexual desire," [4] found that dopamine plays an essential role in sexual functioning. Why is this important? Because the CB1 receptor influences dopamine transmission.

New research from Michele Baggio [5] goes one step further. The economist, who works at the University of Connecticut, recognizes a genuinely staggering finding—approving medical cannabis laws triggered a rise in birth rates.

Alongside study co-authors Alberto Chong and David Simon, she inspected three different datasets. They

learned that the birth rate rose by approximately four births per quarter for every 10,000 women of fertile age. The findings were outlined in a working paper [6] featured in the National Bureau of Economic Research.

Conclusion

There is currently no lack of anecdotal evidence pointing to the sex life-enhancing effects of cannabis. Take the results of a 1979 study [7] published in the Journal of Clinical Psychology, for example.

Most of the 84 grad students who participated in the study felt that cannabis consumption improved their sexual encounters by heightening sensitivity to touch, encouraging

feelings of relaxation, and putting them on a happy high. On the other hand, just the so-called "experienced smokers" praised the plant as a natural aphrodisiac capable of boosting orgasm intensity.

As we see more places worldwide adopt/consider adopting cannabis reform measures—Europe is one of them—an increased number of people will likely start raving about their dope bedroom moments. Then

again, considering everything, good sex depends on a person's taste.

"There is currently no lack of anecdotal evidence pointing to the sex life-enhancing effects of cannabis."

References

- 1 <https://www.mdpi.com/2227-9032/10/1/71/htm>
- 2 [https://www.jsm.jsexmed.org/article/S1743-6095\(17\)31417-0/abstract](https://www.jsm.jsexmed.org/article/S1743-6095(17)31417-0/abstract)
- 3 <https://www.sciencedirect.com/science/article/pii/S2050116120300866>
- 4 <https://www.sciencedirect.com/science/article/abs/pii/S1743609515325510>
- 5 <https://econ.uconn.edu/person/michele-baggio/>
- 6 <https://www.nber.org/papers/w25208>
- 7 [https://onlinelibrary.wiley.com/doi/abs/10.1002/1097-4679\(197901\)35:1%3C212::AID-JCLP2270350135%3E3.0.CO;2-K](https://onlinelibrary.wiley.com/doi/abs/10.1002/1097-4679(197901)35:1%3C212::AID-JCLP2270350135%3E3.0.CO;2-K)

CBD TINCTURE

**BETA
MYRCENE**

1000+mg of organic CBD in a 10ml bottle of cold pressed organic hemp seed oil.

How is WPE different from other CBD oils?

You are not getting the full support of the plant by isolating one cannabinoid. WPE's products have a combination of organic whole plant extract CBD/CBDA full spectrum crude oil PLUS cold pressed organic hemp seed oil.



PRICE DROP!



WPE'S TINCTURE AND BALM ARE AVAILABLE FROM:

WWW.WEEDWORLD.CO.UK



**AMSTERDAM
SEED CENTER**

✓ **THE BEST SEEDBANKS**

✓ **1500+ CANNABIS STRAINS**

✓ **DISCREET WORLDWIDE SHIPPING**

✓ **FREE PROMO SEEDS**

CONTACT

Gravenstraat 12, 1012NM,
Amsterdam, The Netherlands

info@amsterdamseedcenter.com

00 31 (0)20 737 00 60

Our shop is opened 7 days a week
from 10:00 till 19:00

FOLLOW US



ORDER ONLINE

WWW.AMSTERDAMSEEDCENTER.COM

Download magazines
direct to your tablet
or smartphone

Control every aspect
of your subscription
online and with ease

Stock the entire library
of Weed World
magazine back issues



NEVER
miss an
issue again!

WEED WORLD MAGAZINE.ORG

VISIT US ONLINE AND DOWNLOAD ANY ISSUE OF WEED WORLD!



Welcome to **Weed World TV**
The Official Video Channel of Weed World



**THE LATEST
CANNNA
NEWS**



Report: Super Sour OG



Live From the Garden



Report: USA CBD EXPO

Mini Documentaries
+
Investigative Reports

Indepth Interviews
+
Grow Journals

New Products
+
Product Testing

A BUG'S LIFE

ROOT ROT

By Sirius Fourside | growweedeasy.com



Cannabis Root Rot – Slimy, brown, twisted, or unhealthy roots are caused by unwanted pathogens in your hydroponic tank!

The marijuana plant on the left is healthy, and the plant on the right has root rot. Root rot symptoms often look like a soil-plant that has been severely over or under-watered. The curled, drooping, unhealthy leaves result from the plant not being able to get enough oxygen through the roots.

Go Straight to the Solutions for Root Rot!

An example of cannabis root rot can look like is "under the hood." Every infection looks slightly different, but brown roots are usually the main symptom. It may affect all or just parts of the roots, and the sick sections usually become slimy or mushy and start twisting together. Healthy cannabis roots are white or cream colored!



Root rot can be caused by several different organisms, including types of bacteria, fungi, algae, and parasitic oomycetes. Although the symptoms are similar between different types, they don't always look the same.

However, growers generally refer to unhealthy root browning as just "root rot."

Root Rot causes droopiness and other symptoms similar to over or under-watering.

The Most Common Triggers for Root Rot Are Light Leaks, Heat & Lack of Oxygen in the Water

Because different pathogens can cause cannabis root rot, a solution that solves root rot symptoms for one grower may not necessarily work for another grower. What's attacking your roots in California might be completely different from attacking the roots of a grower in Australia. That being said,



there are tools to fight against root rot no matter what kind you have!

The brown tinge on the young roots on the left is the first sign of root rot.

Some varieties of root rot primarily affect the roots below the water's surface while the roots located above the waterline stay white and healthy. This phenomenon is why hydro growers often recommend maintaining at least a small air gap under the net pots. Oxygen-rich moist environments (including that misty air gap) make it very difficult for root pathogens to grow.

When new white roots are growing, it's a sign the plant may be getting better! Even after roots have recovered, you may see the brown entirely covered by new white roots again for a while.

Brown, infected roots often appear twisted. The twisting/bunching together is the result of infection. Healthy roots have individual "strands" that stay separated even when floating together in a reservoir.



Cannabis roots with root rot sometimes look mushy or slimy and can almost look like they're covered in snot. This case of root rot (see image, left) was caused by a brown algae bloom. Brown or green algae is especially common in hot temperatures or when there are light leaks!

IMPORTANT: ROOTS CAN BE STAINED FROM NUTRIENTS THEY ARE NOT ALWAYS BROWN FROM ROOT ROT

Nutrient-stained roots are not slimy or smelly, and all the roots are evenly dyed the same color. You'll be able to see each individual "strand" on healthy cannabis roots, as they won't be twisted together. You also won't see leaf symptoms or wilting on the plant itself.

The first sign of root rot is usually wilting or drooping, though sometimes you won't have any symptoms at first. Root rot often strikes immediately after disturbing the roots or completing a reservoir change, especially with young plants. It's a good idea to avoid disturbing young seedling roots when possible! This gives the roots time to build up a biofilm that protects them against root rot.

Cannabis root rot can cause leaf symptoms that can look like almost anything: cannabis leaves get burnt edges or tips; yellow/bronze / brown spots or stripes; nutrient deficiencies; clawing and curled edges; and other unusual leaf symptoms.

Sometimes you'll have a plant with root rot that looks completely healthy other than the roots. Don't ignore this problem, as you will likely start getting symptoms!

What Causes Root Rot in the First Place?

The plant ailment we think of as 'Root Rot' is a bunch of similar symptoms caused by many different types of organisms. In addition to these harmful organisms causing similar symptoms, they also show up for the same reasons. We group them together since these organisms all cause the same problem – gross, brown roots.

So what causes root rot? If you're growing in soil or coco coir, there's one leading cause: stagnant water at the roots. If your plants sit in old water that's getting light (from the sun or elsewhere), their roots are connected to a

breeding ground for unwelcome organisms.

Root rot is a significant problem to look out for in DWC; many factors can cause it to show up. The most common are:

- Heat – A warm reservoir makes it easier for bacteria to reproduce. Keeping a cool reservoir creates an environment in which harmful bacteria/fungi just can't survive.
- Light leaks – Light in your Reservoir equates to a population boom Reservoir of the smaller, unwanted populations living.
- Lack of oxygen in the water – It's party time when you remove the air and agitation from your reservoir water! A gross, smelly, sad party.
- Agitating young roots – Young roots need time to build up their defenses. Moving them not only weakens them but potentially exposes them to new pathogens.
- Decaying matter in the Reservoir – Old bits of dead leaves can be the start of something bad. Make sure you fish any plant matter out of your reservoir when you see it. Except for roots, leave those in there.

Your cannabis plant has started drooping, leaves are getting sick, and roots are brown, twisted, smelly, and slimy. These are all signs you have cannabis root rot.

When a plant is wilting or drooping, whether it is in soil, coco, or hydro, it is almost always a sign that's something is going on at the roots.

The wilting is often soon followed by other symptoms to the leaves, especially burning, brown spots, nutrient deficiencies, spotting, and other unusual leaf symptoms.

Root rot can cause a wide range of symptoms because the plant is shutting down without the roots!

Plants with root rot often start drinking less water. If you notice symptoms in your cannabis plant, take precautions to stop root rot from getting worse!

You need to watch the roots and the new leaf growth for signs of root rot recovery. Some brown roots may eventually turn white again after the root rot is gone, but it's important to note that damage is permanent on the leaves. Brown leaves will never turn green again.

Root rot primarily affects marijuana plants in hydroponic systems, but roots can also get pathogens from over-watering your plants in soil or other mediums. Anytime the roots are sitting in wet conditions for too long without any oxygen, they are at risk of developing root rot.

- Cannabis plants with root rot almost always appear over-watered or droopy (sometimes plants wilt overnight!)
- Brown, slimy or smelly roots
- Plant leaves often start turning yellow or white
- Leaves may start dying and falling off rapidly
- Often you'll see what appears to be a random mix of nutrient deficiencies on the leaves – this is because the plant can't absorb nutrients properly at the roots even if they're there
- Plants may drink much less water than usual

Solution: What to Do About Marijuana Root Rot, Algae Growth & Slime in the Reservoir

It can be challenging to get rid of root rot, and many growers feel it's easier just to scrap the plant and start over. However, if you're growing in the same spot, you're likely to get it again unless you find a true solution, and there are proven techniques that will cure your plant of root rot

problems!

To get rid of root rot successfully, you need to take a two-pronged approach. You will need to:

1. Treat the plant's root directly with something that will help protect them against root rot
2. Change the plant's environment so that root rot no longer has a good place to grow.

Go through the list below and cover all your bases to get rid of root rot and prevent a re-occurrence. It's also important to note that affected roots will likely never recover, just like how discolored leaves on the plant will never recover. You're looking for new, healthy white root growth coming out of the old, sick roots.

Learn how to prevent and treat cannabis root rot

1.) Add Beneficial Root Bacteria – Crucial!

Some people (like me) add beneficial bacteria to their water to help prevent and treat root-related plant diseases and help make nutrients available to the plant. Some of the formulas available are Hydroguard, VooDoo Juice, Great White, and Rooters. Most of these can be used with both hydro and soil growth.

HYDROGUARD

I recommend Hydroguard because I've used it successfully to treat root rot in hydro, and I've also seen it work for many other hydroponic cannabis growers! It's pretty inexpensive and concentrated enough that a single small bottle can last throughout your grow.

The "secret sauce" in Hydroguard is a specific type of bacteria called *Bacillus amyloliquefaciens*. It survives in hydroponic reservoirs better than other *Bacillus* bacteria and fights many root ailments, including fungi, bacteria, and oomycetes. It not only gets rid of and prevents root rot, but there's some evidence *Bacillus a.* may help lower salt concentration in the plant tissue itself!

GREAT WHITE ROOT POWDER

Great White is another root supplement that works by giving your plant roots lots of good stuff to help it be more resistant to root rot. Some growers have tried Great White without seeing any root rot recovery. However, other growers have had great results with this supplement! For example, in our growing forum, like Hydroguard, some hydroponic growers have cured their root rot simply by adding Great White to their Reservoir.

It all depends on exactly which organism is growing in your tank! What was growing in mine might not be the same as what's growing in yours, so when it comes to "good bacteria" supplements, it can't hurt to try more than one if the first one doesn't work.

A small sample of Great White doesn't cost much, so if you're still struggling with root rot after trying everything else, it's worth seeing if it works for you!

2.) Lots of Bubbles

It is incredibly beneficial to get as much oxygen as possible dissolved in your water. Therefore, it's good to buy a medium-sized air pump and big air stones for your hydroponic system.

Up to a point, the more bubbles and surface agitation, the better, as this dissolves more oxygen into the water. As

long as the roots are not significantly disturbed, you can't go wrong with adding more oxygen.

Root rot cannot thrive in an oxygen-rich environment, and your plants will grow faster with lots of oxygen. I use one EcoPlus 2 Air Pump w/ 2 Outlets for each 10-gallon container (which each holds 5 gallons of water), which I have connected to 2 large air stones per air pump since this one has 2 outlets; this helps make sure there's plenty of oxygen in the water healthy roots and faster growth.

You need 3/16-inch standard aquarium tubing to hook everything together. Try to get tubing in black to ensure light can't get through.

This has worked great for me – I haven't had root rot since I started using this air pump/air stone combination with Hydroguard. But lots of different pumps and types of air stones will work great – the important thing is to make sure that you see lots of bubbles!

3.) No Light Leaks in the Reservoir!

Your roots don't like light, so the harmful organisms that attack cannabis roots love the heat and light they receive from your grow lights!

Therefore, hydro growers want it to be ultimately pitch black in their DWC reservoirs. You should not be able to see even a tiny bit of light where your roots are!

You don't need to worry as much about repairing light leaks when using a dark, thick, and sturdy tub as your water reservoir.



I love this idea from IG @ Farmerjim420. Help block light and heat from the Reservoir with a simple towel!

To accomplish a totally dark reservoir for your marijuana plants, here are some things to keep in mind!

1. Consider the Material & Thickness of the Reservoir Tub – Darker and thicker material will let less light through to the Reservoir.
2. Consider Reflectivity – Pale colors tend to reflect back more light and heat, but you can always increase the reflectivity later by covering the lid with a reflective material!
3. Check Thoroughly for Light Leaks! You may need to get down low and look up to see them!
4. Use Opaque Tape to Cover Any Light Leaks – Electrical tape and reflective tape are great options for covering up places where light is getting through.
5. Use Dark (Light-Proof) Tubing – Another way to protect the water from light exposure
6. Light-Proof Your Net Pots. Neoprene net pot inserts are great to fill in the net pot instead of using clay pebbles and won't let any light get through.

All the Hydroguard, Great White, H₂O₂, or other root supplements in the world often won't solve a root rot problem if there's a light leak!

4.) Keep Grow Room Cool

Lower the temperature of the grow space under 80°F, and even better under 75°F. This also lowers the temperature of the water in your reservoir. Water can't hold much dissolved oxygen at higher temperatures, and your plants need oxygen to "breathe."

Getting more oxygen to the roots helps fight root rot,

making your plants grow much faster. If it's too hot in the grow space, you're more likely to run into root rot and droopiness.

In an ideal world, the maximum recommended temperature for the water in your Reservoir is around 72°F (22°C), and some growers will go to great lengths to keep their reservoirs very cool. However, when using a great supplement like Hydroguard that fights root pathogens directly, you can often keep the temperature quite a few degrees higher without a problem.

Learn how to control the temperature in the grow room. Cannabis plants like about the same temperature as humans do!

5.) Avoid Disturbing Roots, Especially Young Plants

When it comes to nutrients and plant growth in a hydroponic setup, it's important to watch over your roots and change your reservoir water regularly. This is especially important in the flowering stage when the plant is susceptible to nutrients and pH. Regularly changing your water every 7-10 days will help your plants better access nutrients and help prevent deficiencies and toxicities.

However, when your young seedling or clone is first established in your hydroponic system, it doesn't have an established colony of good bacteria around the roots. It has not yet grown a biofilm that protects the roots against pathogens.

During this initial period, a full reservoir change can throw everything off balance, and your roots have to sort of "start over" from the beginning.

If you historically struggle with root rot, it's recommended to only top off the reservoir with additional nutrient water for the first 3-4 weeks of your cannabis plant's life. And hold off on a full reservoir change until your plants have grown lots of roots with a healthy layer of biofilm over all the tank's roots and sides/bottoms.

6.) Keep Everything Extremely Clean & Sterile

In a hydroponic system, make sure that any dead roots, dead leaves, or other plant debris don't get into the reservoir because they will provide a breeding ground for bad bacteria as they start rotting. If you notice organic matter in the reservoir, fish it out as soon as possible.

You also want to keep your grow area as clean as possible to stop bacteria before it starts. Before you begin your grow, it's a great idea to clean all grow-related items to kill any bacteria or fungus.

HYDROGEN PEROXIDE (H₂O₂) IS ONLY A TEMPORARY SOLUTION: USE ALONGSIDE SOMETHING ELSE FOR MORE LONG-LASTING PREVENTION!

Some people recommend treating cannabis root rot with H₂O₂, also known as hydrogen peroxide. While adding hydrogen peroxide to your water will kill most bacteria and pathogens, including those that cause root rot, it is only effective in your system for a day or so since the H₂O₂ is quickly converted to oxygen and water.

Therefore, if you use hydrogen peroxide as a treatment for root rot, you will need to treat your water daily to prevent re-occurrences until you fix the problem that is causing your root rot in the first place. I have used commercial grade H₂O₂ against root rot more than once, and I never saw any noticeable difference, so I would NOT RECOMMEND H₂O₂ as any type of long-term cure!

Why Not Use Hydrogen Peroxide? H₂O₂ is only

temporarily effective at best when getting rid of root rot. It makes me so sad when people tell growers to use H_2O_2 to kill root rot because I know they will continue to struggle with it. Even the commercial grade stuff just doesn't work most of the time (and I've tried)!

All H_2O_2 does is cause bubbling near the dead brown roots (or any organic matter), which is why I think people believe it's helping. In my experience, it doesn't help the plants themselves (they don't look any better), and what's worse, all the H_2O_2 will be gone entirely from the water within 24 hours.

H_2O_2 kills most of the bacteria in the Reservoir, including any good bacteria. Reservoir dded, and does nothing to address the underlying problem. You can't sterilize away root rot; it attacks people everywhere! Although H_2O_2 does kill bad organisms, it leaves enough of it there to repopulate your Reservoir.

I recommend Botanicare Hydroguard (the newer, improved version of Botanicare's popular "Aquashield" root supplement) for marijuana root problems. I've used it successfully to get rid of more than one case of Root Rot (by 'successful,' I mean new white roots exploded out of the old mushy brown ones, and I was able to harvest the buds eventually – see image on right).

Hydroguard (and their old supplement Aquashield) are also much cheaper than most other similar root treatments and, in my experience, more effective.

Take a look at what happens with the roots from using a

supplement like Hydroguard.

You are looking for new healthy white roots growing out of the old brown roots. Eventually, as the root ball gets bigger, you will no longer be able to see the old brown roots. After you start noticing a recovery, some growers will snip off old dead roots, but I often don't.



Notice the new white roots growing out of the old brown dead ones within just a day or two of receiving Hydroguard in the Reservoir (see left). The plant has stopped showing any new symptoms and appears to be growing normally.

Now look at the second image on the left. You can barely see any signs of the old brown, and all the new roots generally appear white and healthy. The plants on top are lush, healthy, and fast-growing, though the old burnt leaves never recovered.



In addition to treating root rot, I like to use Hydroguard or as a preventative. Hydroguard has gotten me through a hot summer before. It is surprisingly effective even in warm reservoirs.

Since I first started using Hydroguard in DWC, bubbleponics, and other hydroponics, it has successfully prevented me from getting root rot as long as I keep using it. I also use it when growing in the soil if I suspect root problems.



FREE SEEDS

Add a 5/10 pack of Kush Cannabis seeds to your cart



Enter code at checkout:
FREESEEDSKUSH



Follow the instructions in the pop-up window

3 FREE fem Kush Cannabis seeds will be dispatched with your order

Offer applies to featured seedbank only. Discounts cannot be used in conjunction with any other offers, promotions, coupons or discounts. Weed World reserve the right to modify the terms of this offer at any time. Subject to availability, while stocks last.

THE ONE-STOP-SHOP FOR ALL OF YOUR CANNABIS NEEDS



CBD Products



Storage



Bongs & Pipes



Papers & Tips



Vapes



Accessories



Merchandise



Books

Order online, or call 01974 821 696
ORDERS@WEEDWORLD.CO.UK

WEEDWORLD.CO.UK



The Rise of Legal Psychoactive Cannabinoid Products

By Dario Sabaghi

Although more than 18 states have legalized recreational cannabis in the United States, two-thirds of U.S. states haven't yet regulated the industry.

Several states, including North Dakota, Ohio, and Minnesota, are running campaigns to regulate the industry in 2022.

However, the craving to consume high-THC products, even in states where it is illegal, led cannabis companies to create and sell products containing minor cannabinoids with psychoactive effects.

When former U.S. President Donald Trump signed in 2018 the Farm Bill that legalized the cultivation of hemp and the sale of products derived from hemp with a THC level below 0.3%, companies used a loophole to produce psychoactive cannabinoids that live in a grey area.

While THC (also known as Delta-9 THC), the main compound of the cannabis plant, has psychoactive effects, other cannabinoids, such as CBD, CBG, and CBN, have no such psychotropic properties. These cannabinoids can be extracted from the hemp plant to produce many commercial products, including oil, topical, edibles, and soft gels.

But in recent years, companies in the U.S. are commercializing products containing minor cannabinoids extracted from hemp with psychoactive effects, including Delta-8 THC and THC-O acetate.

Delta-8 THC is a cannabis compound that shares almost the same molecular structure as THC, still illegal in most U.S. states. It has similar psychoactive effects on humans, although less effective. But unlike THC, Delta-8 THC is not unlawful at the federal level, although it is unregulated.

The story of THC-O¹ acetate is even more interesting. This cannabinoid is not a naturally occurring cannabinoid in cannabis because it is extracted from hemp's CBD. THC-O is an ester of THC. It can be synthesized through a chemical process using acetic anhydride, a high-inflammable and colorless liquid. The method to synthesize THC-O consists of extracting Delta-8 THC from CBD extracted from the hemp plant. Finally, acetic anhydride is added to the Delta-8 THC molecules to produce THC-O acetate.

These cannabinoids are not regulated, and they are supposed to be illegal because of their psychoactive effects. But as they comply with the 2018 Farm bill, they could be sold.

Furthermore, little is known about these minor cannabinoids. A study on Delta-8 THC shows it provides much of the experiential benefits of Delta-9-THC with lesser adverse effects. Even less is known about THC-O, but some experts warn consumers to use it as it may be toxic due to the chemical used for the preparations.

But despite lack of information, they are becoming increasingly popular. A study² published in early 2022 has shown that Delta-8-THC was heavily searched on Google in the U.S. 2020 and 2021. Researchers measured the public interest in Delta-8 THC by analyzing the Google queries that mentioned the cannabis compound taken into consideration for every state in the U.S. The public interest in Delta-8-THC increased rapidly in 2020 and 2021 and

was exceptionally high in those U.S. states that haven't decriminalized or legalized recreational cannabis.

Prohibition policies that don't allow people to consume high-THC cannabis products seem to lead consumers to try minor cannabinoids with similar effects of THC, which naturally occur in the cannabis plant.

However, such a trend may expose them to consuming unsafe products. The U.S. Food and Drug Administration (FDA), which still excludes CBD from the dietary supplement definition, has recently notified³ the public about the risks of the Delta-8 THC products as the agency does not currently approve them. The agency also received 22 adverse event reports from people who consumed Delta-8 THC products.

Regarding THC-O-acetate products, the situation is even more complicated. Some experts report that it is three times more potent than THC and significantly longer. But what is more worrying is the lack of research on this product. There are no robust studies about THC-O acetate in this writing.

Other minor cannabinoids that promise psychoactive effects are popping on the shelves. For instance, Delta-10 THC and hexahydrocannabinol (HHC) are newcomers in the cannabis market.

Like Delta-8 THC, Delta-10 THC is extracted from hemp. It is a cannabinoid marketed to help relieve stress and tension while not causing you to get intense feelings of paranoia, anxiety, or psychoactive effects. Although consumers may feel some psychoactive effects, Delta-10-THC products generally have milder effects than products containing Delta-8 THC.

HHC⁴ was created in the 1940s, adding hydrogen molecules to Delta-9 THC, which converts THC to HHC. Experts don't have a firm position about HHC's potency as it has THC-like effects on the body and mind, but it is reported to be less potent, milligram-per-milligram, than Delta-8 THC.

Thanks to the 2018 Farm Bill loophole, these products are sold in the form of soft gels, oil, and gummies in all 50 U.S. states, although they are not federally regulated. However, some states have started to ban them.

In recent months, 14 states⁵, including New York, Colorado, and Mississippi, have blocked the sale of Delta-8, citing a lack of research into the compound's psychoactive effects. However, not all states see the compound as a health concern.

For instance, in Texas, where recreational cannabis is still illegal, Delta-8 THC has become "temporarily" legal after a county judge blocked⁶ the state from criminalizing the hemp extract.

The cannabis industry will keep creating new products that continue to push the boundary of legality. At the same time, legislators and regulators struggle to keep pace. To avoid the lack of regulation regarding these psychoactive products extracted from hemp, federal agencies should regulate these new minor cannabinoids.

1 <https://www.forbes.com/sites/dariosabaghi/2022/01/18/what-is-thc-o-acetate-and-why-is-it-getting-attention/?sh=52f0340c5991>

2 <https://www.forbes.com/sites/dariosabaghi/2022/01/12/study-how-popular-is-delta-8-thc-in-the-united-states/?sh=2c8544c24cfc>

3 <https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-Delta-8-thc>

4 <https://www.hempgrower.com/article/what-is-hexahydrocannabinol-hhc-hemp-derived-cannabinoid-thc/>

5 <https://www.nbcnews.com/health/health-news/delta-8-thc-legal-many-states-some-want-ban-it-n1272270>

6 <https://www.texastribune.org/2021/11/08/delta-8-texas-legal-lawsuit/>

SUBSCRIBE TO

WEED WORLD

SIX ISSUES FOR ONLY \$100/£35!

\$100/£35 SUBSCRIPTION PRICE IS FOR US AND UK RESIDENTS RESPECTIVELY. OFFER AND PRICE SUBJECT TO CHANGE.



SUBSCRIBE today and receive your
FREE bonus copy of the last issue of
WEED WORLD!

SUBJECT TO AVAILABILITY
WHILE STOCKS LAST



 UK: 01974 821 518

 orders@weedworld.co.uk

 weedworldmagazine.org

 Weed World, Tregaron,
SY25 6PX, UK

SEND COMPLETED FORM AND PAYMENT TO OUR UK OFFICE: WEED WORLD, TREGARON, SY25 6PX, UK



Please start my 6 issue (1 year) subscription to WW magazine.
My payment details are below. Please complete in BLOCK CAPITALS.

157

Delivery Address

Full Name: _____

Address: _____

Postcode: _____ Tel: _____

Email: _____

☐ I am currently a subscriber (please tick if you wish to continue your current subscription)

☒ **Cash** (INCLUDES 2ND CLASS P&P. PLEASE SEND CASH BY REGISTERED POST)

USA £77.00 ☐

UK £35.00 ☐

EU £55.00 ☐

Rest of the World £77.00 ☐

If you would like to order your subscription online, please visit weedworldmagazine.org

What is Whole Plant Extract?

"Whole plant" means exactly what it says. You will find everything from the plant blended together; the leaves, trichomes, terpenes and the flowers to maintain and support a healthier lifestyle.

Organic CBD Tincture

Our **CBD Tincture** is designed to be ingested to maintain a healthy diet.

Organic Topical CBD Balm

Our **Topical CBD Balm** is oil-based, so absorbs more quickly into the skin.

OUR PRODUCTS COMPLY WITH MHRA STANDARDS



Our products contain

1000MG+
FULL SPECTRUM CBD!



WHOLEPLANTEXTRACT.CO.UK

SHOW ME THE **MONEY**

By Psy-23



Throughout the decades of prohibition it has been impossible to truly understand just how much money was funneled into the black market each year through illicit sales of cannabis on the streets. While it is certainly possible to make estimations, the true value of this lucrative market is widely considered to be hugely underestimated.

Now that we have begun to reap the rewards of changes to medical legalization, and even full-blown legalization, there are a number of indicators emerging that hint towards the first shockwaves of an emerging cann-economy, as it were. Over the coming years it is likely that we will see an exponential increase in the amount of money spent across America and the wider world, but how will the systems in place adapt to meet the needs of something so new and exciting?

One of the most complicated aspects of this gradual shift in perception across the numerous states is linked to how state law conflicts with certain aspects of Federal law. As cannabis remains listed as a controlled substance at a Federal level, it automatically places restrictions on how businesses can be financed. Currently, it is illegal for a bank or credit union to lend a person or company money for the purposes of investing in anything linked to a federally controlled substance meaning that you can't apply for a business loan or take out a credit card with the express intention of using it to attain funds or pay for business expenses. Many see this as a potential hindrance to independent business owners who attempt to compete with established dispensaries or people with their own money to invest but it seems like some states are starting to buck the trend.

A recent study found an apparent connection between the move towards legalization and the amount of banking activity that took place within each state. With many banks apprehensive about loaning money to businesses linked to cannabis, the findings are intriguing to say the least and while there is no absolutely conclusive evidence to categorically state that the two phenomena are intrinsically linked, it certainly makes for some interesting reading.

By analyzing bank regulatory filings with the FDIC* evidence came to light that a range of banking activities including loans and deposits significantly increase in size and regularity when compared to states who have not yet made similar changes. Banks tend to exhibit cautious behavior when considering customers (it's why we have credit checks) and this means that sometimes banking institutions can "hinder economic activity" for fear of repercussions. While official positions do not seem to have changed, it is hypothesized that some banks may be turning a blind eye to the exact nature of their clients' business interests in order to both support the industry and, in turn, make good profits for their shareholders.

In the study it explains that while "uncertainty can result in overly cautious behavior" there is no "evidence of this

with banking laws and the cannabis industry". Instead, bank lending was found to have increased anywhere from 6.5-8.6% post-legalization with deposits also showing increases of around 4% on average. Obviously, this isn't proof in itself that that banks have totally changed their tune.

There are so many facets to the industry that a large proportion of the revenue that it generates comes from places you might not instinctively think of. Dispensaries will pay money to suppliers and tradesmen, traditional firms may offer services to new businesses or enter into promotional partnerships and a huge range of other possible avenues exist that would benefit from legalization without direct involvement. Some institutions have filed requisite reports which state that they are working directly with cannabis clients but this is still just a fraction of the total institutions considered in the study. The authors of the study have come to the conclusion that there are two likely possibilities for catalysts to this trend.

They suggest that the "risk from regulatory uncertainty did not decrease banks' willingness to accept deposits or make loans [because the] banks were either unconcerned about the potential risk associated with accepting cannabis related deposits or optimistic about the chances that regulation will adapt to the needs of legalizing states". Both of these are valid considerations and changes to legislation around banking regulations is something that is ever evolving. Previously we have seen guidance for financial institutions in relation to reporting requirements for any

business related directly to cannabis and around the time that the SAFE Banking Act was brought in there was a sharp increase in the number of institutions who registered their cannabis clientele with the relevant authorities.

Ultimately the banking system is based around managing the balance between risk and reward.

Regardless of the letter of the law, there is a serious lack of evidence that institutions are prosecuted, penalized or even investigated in relation to this matter. As a result, it is perfectly plausible that banks are prepared to branch out into the cannabis world as they deem the chance of a negative consequence as incredibly unlikely or that the actual repercussions would be too minor to even consider. If banks continue to put faith in this idea then it could eventually benefit the status quo by ushering in changes to legislation

People see that there is so much potential to this market but without the security provided by a change to the law it leaves people in a quandary. If the system was entirely legal it would allow for more money to come in via taxes, bring dividends from interest on loans and credit and allow communities to channel money back into supporting themselves. Too much money is tied up by red tape and until real change comes there will always be people out there who will continue to work for change. It is only a matter of time before the potential economic gains of legalization become too large to ignore and it will be no surprise if this trend continues to blossom and grow in the meantime.

*Federal Deposit Insurance Corporation

Sources: https://www.researchgate.net/publication/357283995_THC_and_the_FDIC_Implications_of_Cannabis_Legalization_for_the_Banking_System

"Ultimately the banking system is based around managing the balance between risk and reward."

Most Studies Show Cannabis isn't an Alternate Therapy, But it Can be Used as Supportive Therapy

Written by Paul James

When it comes to all-natural healing, there are a lot of herbs and supplements that get tossed around. However, cannabis may be the most versatile – a quick Google search concerning cannabis and ANY health condition will show it just might help.

There's no denying that research coming out of the last few decades has gone to show there's plenty of reason to legalize this plant. It has yet to identify whether or not this plant can replace other forms of medication in the treatment of specific health conditions.

For example, take Dravet Syndrome - a rare form of epilepsy - and cannabidiol (CBD). It's been found repeatedly that CBD drastically reduces the number of seizures experienced by someone with this condition. ¹ But it still doesn't cure Dravet Syndrome.

Throughout this article, we will take a deeper look at why cannabis can be so helpful in the versatility of health

conditions yet, remains a supportive therapy rather than an alternate treatment.

Why is Cannabis Such a Versatile Medicine?

Scientists have only recently discovered one relation between cannabis and the human body - the endocannabinoid system (ECS).

The ECS works through a cell-signaling system of neurotransmitters, enzymes, and endocannabinoids constantly sending information between the brain and the body. This system is responsible for several aspects of our day-to-day life, from our moods to sleep, appetite, immune functioning, and memory. ²

Phytocannabinoids - cannabinoids found within the cannabis plant - are so closely identical to endocannabinoids that they directly attach to us when we consume them. For this reason, some scientists have gone as far as to say that humans and cannabis evolved together.

"...while we know a lot about THC and pain, we don't know much about CBD and diabetes."

While researchers still don't fully understand how specific cannabinoids directly work with our ECS, we know some areas of this topic.

For example, tetrahydrocannabinol (THC) attaches directly to cannabinoid receptors 1 and 2 (CB1 and CB2). ³ This process disrupts the cells naturally being activated within the body and limits neurotransmission (i.e., dopamine). This activity ultimately

causes the "high" most associated with cannabis, but it also has many medicinal benefits, such as reducing pain and stimulating appetite. ⁴

On the other hand, cannabidiol (CBD) doesn't bind to cannabinoid receptors. Instead, scientists believe it

indirectly influences our ECS in a manner that helps to return it to a state of homeostasis. This is why it may help reduce anxiety, pain, and inflammation.

The ECS is the only reason cannabis is such a versatile plant - it allows cannabis to operate in our brains and bodies in different ways. And when we're struggling with a specific health condition, health condition is likely affecting our ECS.

However, as of this time, research has only pinpointed so much regarding individual health conditions. For example, while we know much about THC and pain, we don't know much about CBD and diabetes.

With that said, it's impossible to properly understand the benefits of these phytocannabinoids without receiving this research. Furthermore, finding the right cannabinoid concentration, dosage, and potential adverse effects concerning each condition is even more challenging.

Cannabis is Safe But Not as Safe as it's Deemed

Still, even with this lack of knowledge, some may assume that it'll remain alright to consume cannabis as it's deemed to be safe. While this is likely true in most cases, it isn't in every case.

To begin, it's been well established that chronic cannabis use isn't ideal for those whose brains are still developing. We know that in such cannabis, cannabis may cause worsening memory and learning abilities.⁵

However, if you struggle with a specific health condition, other things are more concerning.

For one, we only know so much about how cannabis and phytocannabinoids interact with other medications. In some instances, phytocannabinoids actually may inhibit pharmaceuticals and, in turn, prevent them from helping as much as they could.⁶

Suppose you're currently using medication alongside a cannabis product. In that case, it may be beneficial to take a deeper look into how these two are interacting with one another - if there's any research on it.

Secondly, cannabis can cause side effects that may worsen your condition. The most notable of these is psychoactivity, as it can inhibit your ability to function on a day-to-day basis.

For example, people with anxiety may or may not experience paranoia when consuming THC. If they attempt to use cannabis for anxiety, they may find cannabis only worsens their condition.⁷

Finally, it should be noted that cannabis weakens the immune system (more particularly, smoking cannabis). If you're struggling with an infection, cancer, or autoimmune disorder, it's unclear how much cannabis benefits your condition. In cases of an infection, it may worsen your chances of overcoming the disease.⁸

Bottom Line: Cannabis Will Be Used as Supportive Therapy

When it comes down to the research we have now, we'll likely see cannabis implemented in a medical setting as supportive therapy - an additional supplement

to take to help ease symptoms.

Future research will likely look into specific cannabinoids and their potential to help in high concentrations. For example, higher potencies of cannabigerol (CBG) may prove more efficient at treating inflammation than higher concentrations of CBD.

Furthermore, this research will likely also look into how combining two or more concentrations of cannabinoids will affect specific health conditions.

Regardless of how research continues, the bottom line is it's unlikely consuming cannabis will prevent health conditions from developing, nor will it treat already existing conditions. Instead, it may be able to act in ways that make the condition less of a burden on life and allow you to continue through day-to-day activities.

"...it's very likely we'll see cannabis implemented in a medical setting as supportive therapy"

"Future research will likely look into specific cannabinoids and their potential to help in high concentrations."

Reference Sources

- 1 The Annals of Pharmacotherapy: Cannabidiol: A New Hope for Patients With Dravet or Lennox-Gastaut Syndromes: <https://pubmed.ncbi.nlm.nih.gov/30616356/>
- 2 International Journal of Molecular Sciences: Cannabinoid Receptors and the Endocannabinoid System: Signaling and Function in the Central Nervous System: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5877694/>
- 3 HHS Public Access: An introduction to the endogenous cannabinoid system: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4789136/>
- 4 Current Pharmaceutical Design: The Therapeutic Aspects of the Endocannabinoid System (ECS) for Cancer and their Development: From Nature to Laboratory: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5412000/>
- 5 U.S. Department of Health & Human Services (HHS): Office of the Surgeon General: U.S. Surgeon General's Advisory: Marijuana Use and the Developing Brain: <https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html>
- 6 Government of the District of Columbia Department of Health (DOH): Medical Cannabis Adverse Effects & Drug Interactions: https://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Medical%20Cannabis%20Adverse%20Effects%20and%20Drug%20Interactions_0.pdf
- 7 University of Washington: Alcohol & Drug Abuse Institute: Effects of Marijuana on Mental Health: Anxiety Disorders: <https://ada.uw.edu/pubs/pdf/2017mjanxiety.pdf>
- 8 The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research: 8. Immunity: <https://www.ncbi.nlm.nih.gov/books/NBK425755/>

WWW.WEEDWORLDMAGAZINE.ORG

Dr Grinspoon, from Barney's Farm
For more info, turn to page 70





the challenges of

cannabis marketing



By Dario Sabaghi

When the Super Bowl, the annual playoff championship game of the U.S. National Football League (NFL), is scheduled to be aired worldwide, the most prominent companies buy advertising spaces for airing high-quality, appealing, and innovative commercials.

The occasion is unique. Millions of people watch the final game and the long waited Half-Time Show, where the greatest artists of the music scene perform their most iconic songs. Amid such a spectacular event, cannabis tech company Weedmaps didn't want to lose the opportunity to advertise itself.

The cannabis marketplace and delivery service founded in 2008 in California submitted in early 2022 a commercial to NBC-TV, which aired the event for Super Bowl LVI (56) played on 13 February 2022.

Weedmaps's commercial featured a life-sized broccoli sprout (named Brock Ollie) who's tired of being mistaken for something he's not. It was a humoristic commercial as the broccoli emojis are widely used in social media platforms and instant messages apps to represent cannabis, along with leaves and the tree emojis.

However, NBC-TV rejected the commercial, and Weedmaps couldn't advertise its services during the event.

It is not the first time a cannabis company can't advertise at Super Bowl. In 2019, the American commercial broadcasts television CBS, which aired the Super Bowl LIII (53), rejected an Acreage Holdings commercial that called for the legalization of medical cannabis.

But such rejections don't happen only on top-level events. Although legal cannabis is becoming popular year after year, the marketing of the cannabis industry can be challenging.

Globally, CBD-based products medical and adult-use cannabis topped US\$37.4 billion in 2021 and could rise to US\$102 billion by 2026, according to a report¹ by Prohibition Partner. However, T.V. stations and social media platforms continue to restrict the advertisements related to the industry.

Although international markets including Germany, Israel, and Australia will develop considerably over the following years, adult-use markets in the United States and Canada remain the most critical regions in the world for cannabis sales.

In the U.S., cannabis is still illegal at the federal level. Therefore, this makes marketing cannabis challenging.

While alcohol is widely advertised on any platform, cannabis businesses struggle to brand and market themselves and get known to the audiences.

Social media platforms, such as Meta's Facebook and Instagram, hold strict prohibitions against any form of promotion and advertising related to cannabis-based products or services. Twitter prohibits the promotion of drugs and drug paraphernalia, including cannabis. Google doesn't permit ads that promote the use, sale, or even provide informational content about cannabis. Cannabis-related terms, such as marijuana, weed, cannabis, rolling paper, or dispensary, trigger the tech giants' advertising policies. Microsoft Advertising, which provides pay-per-click advertising on the Bing, Yahoo!, and DuckDuckGo search engines, includes cannabis in the list of healthcare products and supplements that cannot be advertised through its service.

Amazon, which recently endorsed a Republican-led bill to legalize cannabis at the federal level, has strict policies on cannabis products sellable on its platform. Although no THC-based products have been found on its digital market store, some retailers placed hemp-based and CBD products, although most are unavailable to buy.

The challenge of cannabis marketing is not limited only to high-THC-based products, as hemp products that don't have psychoactive are subjected to restrictions on social media platforms too.

Although the 2018 Farm Bill legalized hemp cultivation in the U.S., retailers struggle to find outlets to sell products. While Facebook's advertising policies don't explicitly prohibit the promotion of hemp or CBD, businesses find it challenging to get the approval of their content that markets cannabis-based products.

Because CBD can also be found in high-THC cannabis, misinformation has led to restrictive and widely disparate policies crafted and implemented by tech giants on how brands can market, communicate and sell their hemp-derived CBD products.

But restrictions on cannabis marketing don't apply only in the U.S. The situation is not different in the United Kingdom and the European Union (E.U.). Advertisers must first ensure that the products are legal to be sold in the U.K. and Europe.

Is this the case with CBD? It depends. The E.U. placed CBD in the Novel Foods Catalogue, subject to the Novel Food Regulation. Novel food is defined as food that humans had not consumed significantly in the E.U. before 15 May 1997. As a result, products subject to this regulation are not marketable without prior approval from the European Commission.

However, acceptance around cannabis consumption continues, although cannabis businesses continue to face roadblocks. Their goal is to reach consumers and empower them to make knowledgeable purchasing decisions.

For these reasons, cannabis companies have devised new strategies to market cannabis products and services.

Cannabis companies take the precautions to avoid being shadowbanned or restricted on social media platforms by familiarizing themselves with the dos and don'ts of the sites' guidelines. One of the most strategies is creating educational content, which helps businesses increase their "brand authority" and deliver value to their followers—then providing content that complies with the editorial line of the websites that host them.

The risk of being frozen out from the marketing arena brought some cannabis companies to entrust their social marketing activities to cannabis-specific marketing agencies. This made it easier to deal with the strict advertising restrictions and minimize the chances of their social media accounts getting flagged or banned. Some other companies work with social media influencers who have built an authority to market their products.

There are many other strategies that cannabis companies can use to market their products and services that are an alternative to paid ads. Still, these restrictions represent an obstacle to many small companies to emerge, and it looks like that situation won't change until the U.S. administration legalizes cannabis at the federal level.

¹ <https://prohibitionpartners.com/2021/12/16/global-cannabis-sales-hit-37-4-billion-in-2021-rising-to-102-billion-by-2026/>



CAN CANNABIS HELP CURB THE **OPIOID EPIDEMIC?**

By Paul James

We've seen a rise in opioid usage and, more importantly, opioid-related deaths throughout the last few decades. While researchers aren't 100% sure what's causing more people to seek out these substances, some believe it has to do with the rising rates of opioid prescriptions.¹

Simply put, many out there are given opioids for pain relief. However, most aren't 100% aware of how addictive these substances can be. In turn, they develop a dependence their doctors will not continue prescribing. And they'll turn to other opioid drugs (i.e., fentanyl or heroin) to avoid withdrawal.²

One way cannabis may help curb the opioid epidemic is by becoming a new solution for pain management. As we'll get into it, there's lots of evidence to suggest cannabis and various cannabinoids can be used to help manage pain in varying conditions.

Furthermore, some research suggests we may even use cannabis as a therapeutic medicine to help those recovering from opioid withdrawal.

Throughout this article, we will take a deeper look at cannabis and how it may help with pain to prevent opioid addiction. From there, we'll take a look at how cannabis may be able to help those already addicted to opioids.

Cannabis for Pain Relief

Chronic pain is a common symptom of many health conditions, including cancer, heart disease, and diabetes. Chronic pain is the most common long-term disability experienced by Americans.³

Currently, there's a lot of anecdotal evidence to suggest that cannabis may be able to relieve certain types of pain. Furthermore, certain cannabis strains may be more appropriate for pain than others.

But before we can adequately understand how cannabis can help with pain, it helps to know how cannabis affects the body.

By consuming cannabis, we're ingesting cannabinoids found in the cannabis plant. There are over 100 different cannabinoids, but tetrahydrocannabinol (THC) and cannabidiol (CBD) are the two most common.

When we consume THC, the cannabinoid attaches itself to CB1 receptors in the brain and throughout the body. CB1 receptors are responsible for many regulations, including releasing neurotransmitters, such as serotonin, dopamine, and glutamate.⁴ Since these receptors play a role in the brain's reward system, they also affect pain levels.

By stimulating these neurotransmitters, THC can theoretically use the brain's reward system as a way to reduce the level of pain we feel.⁵ However, we currently only have so much research backing up this theory:

- In a 2015 review, it was concluded that marijuana and certain cannabinoids could positively affect treating certain types of chronic pain, such as neuropathy (nerve pain).⁶
- In 2016, a research paper discovered that marijuana consumption led to a 64% reduction in opioid use

among cancer patients. This provided people with fewer medication side effects and improved quality of life.⁷

- A smaller study found that out of 17,000 people struggling with cancer, 70% found marijuana to help improve pain.⁸
- One study found that people with chronic migraines found relief from migraine episodes through cannabis use.⁹

Unfortunately, cannabis research remains inconclusive. An Australian study found that marijuana use didn't seem to affect a patient's pain tolerance or their need for opioid medication.¹⁰

Still, the research is promising and shows that cannabis has potential. But how does cannabis pain relief compare to opioid pain relief?

Opioids for Pain Relief

As of this time, opioids remain one of the best drugs for pain relief. This is because they can be designed for both immediate-release and extended-release - allowing for pain relief of different spectrums.

The reason opioids are so effective for pain is because they directly attach themselves to receptors in the brain responsible for pain sensations. This allows opioid drugs to signal to the brain to reduce pain transmission immediately and will enable the consumer to feel a moment of relief.¹¹

One of the biggest difficulties with opioids is side effects. The most common include:¹²

- Confusion
- Constipation
- Drowsiness
- Impaired judgment
- Increased risk of contracting an infectious disease (if injected through a needle)
- Nausea
- Overdose (sometimes fatal)
- Pregnancy loss, low birth weight, or baby developing opioid dependence
- Slower breathing
- Substance abuse disorder

Of course, cannabis also comes with its selection of side effects - the most notable being psychoactivity. But compared to opioids, cannabis side effects are relatively mild, which is why many researchers are looking into it as a potential pain relief treatment. Furthermore, while cannabis can be addictive, it doesn't hold as much risk as opioids.

While Opioids are Better for Pain Relief, Cannabis Provides Less Risks

As you can see, current research has concluded that opioids remain a better pain reliever than cannabis. While cannabis shows promise, it simply doesn't attach itself

directly to pain receptors as opioids do.

Still, cannabis can provide relief, and that's enough for scientists to hope on. If pain levels aren't too high, medical professionals may be able to incorporate marijuana as a means of reducing the risk of opioid addiction.

Furthermore, as more research comes out, we may develop cannabinoid drugs that specifically help with the pain. For example, suppose it's discovered that higher concentrations of THC mixed with cannabigerol (CBG) are best for pain. In that case, researchers can then develop a medicine incorporating these cannabinoids for those struggling with chronic pain.

Until more research appears, we're only left to guess how cannabis can be incorporated into medical practices. Still, being the promise cannabis has shown, there's plenty of hope that it may be a tool we can use to reduce those becoming addicted to opioids.

Cannabis for Opioid Withdrawal

People who struggle with opioid addiction often claim they fear the intensity of withdrawal. And for a good reason.

When a person suddenly stops taking opioids, their brain and body are sent into a state of confusion. To put it simply, the body has become so accustomed to opioid intake it forgot how to make certain chemicals on its own—leaving an individual to experience withdrawal symptoms.

While symptoms vary from person to person, the most common include: ¹³

- Abdominal cramping
- Agitation
- Anxiety
- Diarrhea
- Dilated pupils
- Goosebumps
- Increased tearing
- Insomnia
- Muscle aches
- Nausea
- Runny nose
- Sweating
- Vomiting
- Yawning

While these symptoms are extremely uncomfortable, they usually aren't life-threatening.

Recent research has set out to determine whether or not cannabis can help relieve some of these symptoms. Furthermore, whether or not it can reduce cravings is one of the strongest withdrawal symptoms that often lead to relapse.¹⁴

One study out of the Johns Hopkins University School of Medicine found that out of 200 people experiencing opioid withdrawal, 125 had used cannabis as a means of self-

medication. Nearly three-quarters (72%) of the 125 people said it helped ease symptoms. Only 6.4% said it worsened symptoms, and another 2.4% found mixed results.¹⁵

"The results show that cannabis may improve opioid withdrawal symptoms and that the size of the effect is clinically meaningful," claimed the authors of the study. "Anxiety is the most common opioid withdrawal symptom improved by cannabis."

We need a lot more research to determine whether or not cannabis can be used to help ease opioid withdrawal. The researchers concluded many out there are already using cannabis as a means to turn their lives around.

Final Word

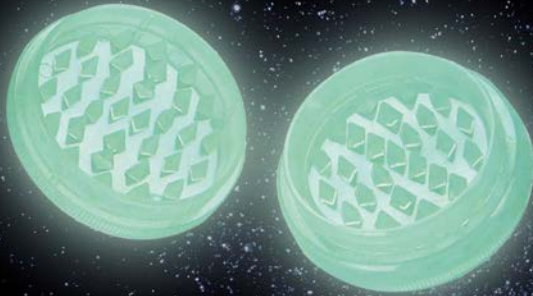
The opioid epidemic has crushed the lives of millions, and many researchers are currently looking for answers. While cannabis may not be the most promising of solutions, it certainly appears that it may be able to act as a therapeutic addition to traditional treatment paths.

Beyond the fact that it may help prevent opioid addiction through its pain-relieving properties, we've also seen it may benefit those going through opioid withdrawal symptoms. Until more research is brought to light on this issue, we'll have to continue waiting for an answer.

Reference Sources

- 1 U.S. Department of Health and Human Services: What is the U.S. Opioid Epidemic? <https://www.hhs.gov/opioids/about-the-epidemic/index.html>
- 2 Pain Management and the Opioid Epidemic: 5.) Evidence on Strategies for Addressing the Opioid Epidemic: <https://www.ncbi.nlm.nih.gov/books/NBK458653>
- 3 British Journal of Anaesthesia: Chronic pain: a review of its epidemiology and associated factors in population-based studies: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6676152/>
- 4 International Journal of Molecular Sciences: Cannabinoids Receptors and the Endocannabinoid System: Signaling and Function in the Central Nervous System: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5877694/>
- 5 National Institute on Drug Abuse (NIDA): How does marijuana produce its effects? <https://nida.nih.gov/publications/research-reports/marijuana/how-does-marijuana-produce-its-effects>
- 6 JAMA Network: Medical Marijuana for the Treatment of Chronic Pain and Other Medical Psychiatric Problems: A Clinical Review: <https://pubmed.ncbi.nlm.nih.gov/26103031/>
- 7 The Journal of Pain: Medical Cannabis Use is Associated With Decreased Opiate Medication Use in Retrospective Cross-Sectional Survey of Patients with Chronic Pain: [https://www.jpain.org/article/S1526-5900\(16\)00567-8/fulltext?cc=y](https://www.jpain.org/article/S1526-5900(16)00567-8/fulltext?cc=y)
- 8 Journal of Pain and Symptom Management: Patterns of Use of Medical Cannabis Among Israeli Cancer Patients: A Single Institution Experience: <https://www.sciencedirect.com/science/article/pii/S0885392414003121>
- 9 Pharmacotherapy: Effects of Medical Marijuana on Migraine Headache Frequency in an Adult Population: <https://pubmed.ncbi.nlm.nih.gov/26749285/>
- 10 The Lancet Public Health: Effects of cannabis use in people with chronic non-cancer pain prescribed opioids: findings from a 4-year prospective cohort study: [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(18\)30110-5/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(18)30110-5/fulltext)
- 11 HHS Public Access: Opioids and the Treatment of Chronic Pain: Controversies, Current Status, and Future Directions: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2711509/>
- 12 Pain Physician: Opioid complications and side effects: <https://pubmed.ncbi.nlm.nih.gov/18443635/>
- 13 MedlinePlus: Opiate and opioid withdrawal: <https://medlineplus.gov/ency/article/000949.htm>
- 14 Addiction Science & Clinical Practice: The Neurobiology of Opioid Dependence: Implications for Treatment: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851054/>
- 15 Journal of Substance Abuse Treatment: The impact of naturalistic cannabis use on self-reported opioid withdrawal: [https://www.journalofsubstanceabusetreatment.com/article/S0740-5472\(19\)30564-1/pdf](https://www.journalofsubstanceabusetreatment.com/article/S0740-5472(19)30564-1/pdf)

OFFICIAL WEED WORLD GRINDER



GLOW IN THE DARK

"EXCELLENT QUALITY, TOUGH & DURABLE!"



THE ORIGINAL AND BEST ACRYLIC HERB GRINDER!

COLORS AVAILABLE

RED • BLUE
PURPLE • ORANGE
GLOW IN THE DARK
CLEAR • GREEN
NEON ORANGE

THE ORIGINAL AND BEST ACRYLIC HERB GRINDER!

3-PART GRINDER WITH STORAGE COMPARTMENT

WWW.WEEDWORLD.CO.UK

RE-DEFINE THE NORMAL
THE REVOLUTION HAS BEGUN



Worldwide Exclusive Partner

Retail

Near Dark

SMOKING PARAPHERNALIA
www.neardark.de



Black Leaf

www.blackleaf.de



why not?

Rolling papers collection by

UAMART.net

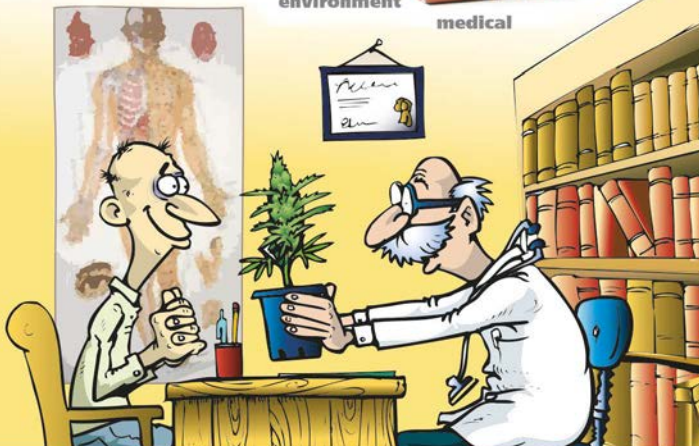


weapons

social

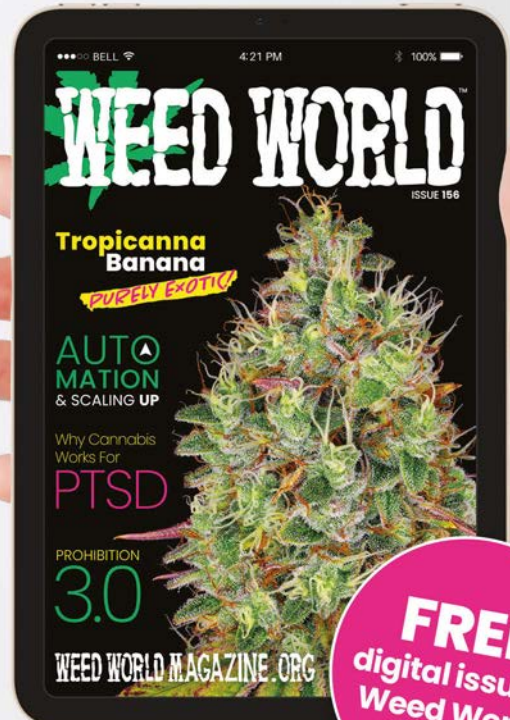
environment

medical



www.whynotshop.ch

WEEDWORLD.CO.UK



FREE*
digital issue of
Weed World!

Order online, or call 01974 821 696
ORDERS@WEEDWORLD.CO.UK

*Spend over £15.00 in the Weed World store (excl. delivery) and receive a free digital copy of the latest issue of Weed World magazine. Weed World reserves the right to change the terms or cancel this offer at any time.

Day Zero

Cannabis in Thailand

By Asia Bio Healing

The hot topic in Thailand right now is Marijuana and Hemp which on 9th DEC last year was removed from its narcotic control drug schedule. Take a bow, Thailand is now an emerging newly legalized country, a first in South-East Asia. However, you may have read that Thailand had already legalized cannabis several years ago, back in 2018. Well it had, kind of but up until now it hasn't really shown much realistic progression or movement as an industry as it has been mired in bureaucracy. You're certainly not going to find the usual backpackers blasting buds in the street. Smoking cannabis is still illegal at this point.

For much of its population there are still too many doubts, is Cannabis really legalized? If so, where in the universe is it all?

We've asked for the opinion of Mr. Eddy Tham Director/Chief Technology Officer of Asia Biohealing Group Company, Bioscience and Technology



which is a company based in Bangkok dedicating itself to bringing Cannabis based products mainstream.

How is the current Cannabis business atmosphere in Thailand?

The current industry here is still very much at an incubation stage and the regulators are operating very cautiously and meticulously on establishing the new laws and regulations to support the industry to prevent a saturated marketplace. The government is aiming to raise its new Cannabis industry with the focus on products produced being of high integrity and sustainability. However, like most governments of the world, lawmaking tends not to be a very fast process even at the best of times. So trying to fast-track all the governmental processes and updating all laws and regulations that correlate with cannabis enterprise for businesses wishing to enter this new industry whilst trying to prevent expeditious oversupply and misuses has proved to be quite difficult.

Was the pandemic an issue for the industry?

A: I think it was for 95% of the world, wasn't it but we initially started to see a rapid movement in the industry back in early 2021 with quite a few large public companies launching campaigns on various Cannabis projects from



Is cannabis legal in Thailand?

which they received generally positive feedback which was also an exercise to entice international investment. However, it is not easy to change the whole system all at once, it requires time and a lot of approvals from congress so when you add in the Covid-19 situation 2021 then seemed to stall to almost a complete halt. But thankfully, it's now back on track.

Can anyone grow cannabis?

Quite simply, yes, but you have to fill out a mountain of forms. In order to control safety and sustainability of Thai Cannabis businesses the Government has integrated many regulations for cultivation and production. Thus, investments in high quality facilities with guaranteed

purchase orders are required before licenses are issued. These stipulations will price many out of the industry which is a shame. However, I believe that the government has spent a lot of time analyzing foreign marketplaces that have already legalized Cannabis and can see that one of the biggest threats to the industry is market prices bottoming out and they want to protect from this by ensuring there is no oversupply in the system by limiting the production output.

What parts of Cannabis are really legal in Thailand at the moment?

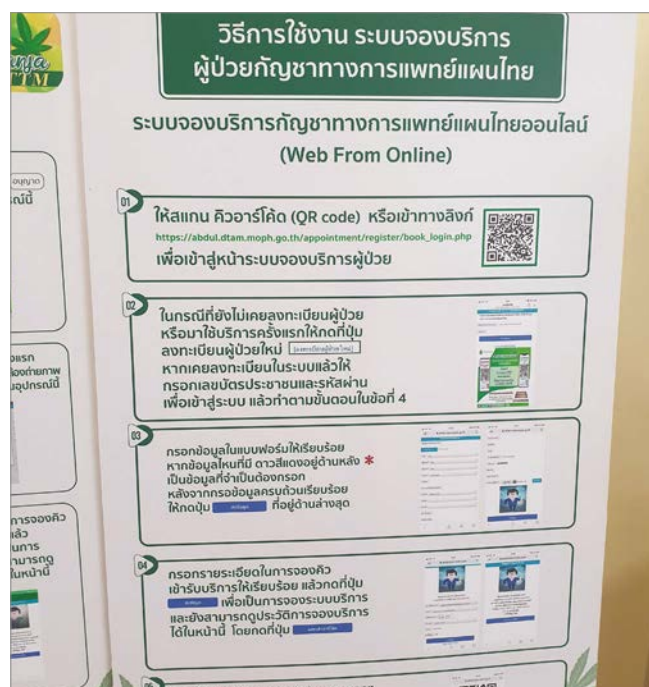
What products are illegal is probably an easier way to answer

1. All imported goods with Cannabis content
2. All Seeds (3 years exemption)
3. All imported parts of the plant
4. All Cannabis Extracts

These regulations will be revisited again for review in 5 years. They believe these rules will allow for local vendors to gain a competitive edge before they open the country for free-trade.

As a local how do you get access to use cannabis and would I be able to use it as a foreign tourist?

Locally produced buds are legal for self-healing usage but the patient needs to register with the government and receive a consultation with a doctor who will then prescribe cannabis oil. This rule exists for both citizens and foreigners alike. For extracts and other infused applications whether in edible, cosmetic, supplement, pharmaceutical manufacturers still need a permit and approval from the FDA but we are now starting to see products being sold online and at trade fairs. Oil derived from seed, Terpenes,



Cannabis Oil information

Locally produced buds are legal



Genofarms attends Thailand's Cannabis expo

and Flavonoids can be freely traded but require a certificate of origin. Once again you might be able to find these to purchase online and at trade fairs.

What are the advantages and disadvantages for overseas investors?

Good question, it depends on what you expect? And what level of understanding do you have of Thailand, its culture and how that is applied to the cannabis industry?

It is an agriculture business; and Thailand is predominantly an agricultural country. So growing cannabis, for some, is supposed to be very easy, which we understand is most often not the case. A weak point for Thai farmers entering this industry is that they have never had to focus on techniques for sensitive plants with qualification criteria for growing and usages.

The Cannabis industry is new to Thailand and considered special, there are no companies with a proven track record in achieving their goals here, so it will all depend on which companies unite with integrated structures and have an extensive knowledge base on subjects such as, Legal, Technology (both in cultivation and processing), Property scale (agricultural land availability), Usage Applications, Premium Geographic Location etc.

Thailand is legally ready, lots of agricultural land available, lots of OEM product manufacturers and potentially lower production costs right across the board. So when we compare the advantages to other countries, we have to take all these factors into account. We understand that it is a very competitive marketplace.

So would you recommend investing in Thailand's Cannabis industry right now?

We believe it may be a good opportunity to invest but it is very complex for foreigners as typically farming and agricultural business is preserved strictly for Thai nationals only. In our opinion, right now may not be the best entry point into what is still considered a high-risk enterprise where there are still so many uncertainties and giant global companies potentially waiting in the wings to devour small startups. The market is still not consolidated, exhibiting a lot of instability along the chain. I would advise to study carefully the laws and regulations as they are updated a lot and seem to change frequently to catch up with the industrial and commercial aspects required by the government but don't worry, you've got time, just make sure that you research and seek more information on reliable operators.

We are forecasting by Q3 the whole market will begin to take shape and reach a relative maturity at which point a comprehensive investment should be able to flourish.

Many people think that to drive a Cannabis market, you must educate the public and assess the demand!

It is correct, nonetheless a mutual drive is required. Not only for the customer but the perception of the Regulators, Investors, Employees and Distributors must change accordingly due to the fact that it used to be a narcotic



The Genofarms stand at Thailand's Cannabis expo



Proven genetics, like Genofarms', are a necessity

drug and there are still people in prison here serving hefty sentences for the use and distribution of it as we speak. As we are dealing with an emerging industry it is the Education that is required for the whole ecosystem as currently there is insufficient human resource with deep knowledge of every aspect of the business.

Other than law and regulation concerns, what else will be the primary focus on Cannabis business in Thailand?

(hearty laugh)

All propagation starts from seedling, correct? Yes, it is about the selection of suitable Cannabis strains to use in Thailand. One of Thailand's largest industrial strengths is being manufacturers of OEM products such as beverages, consumer goods, cosmetics, and supplements, so the majority of the market is leaning towards focusing on Cannabinoid production rather than fiber at this moment.

So as I was saying suitable genetics are imperative to the success of the industry, if we receive seeds that are not up to quality and/or insufficient in raw material production, the consequences could be huge, discouraging farmers to replant or financially wiping them out. There is also a major challenge to farmers, while Cannabis grows are now being promoted throughout the whole country with many applying to grow Marijuana there is also a large group growing Hemp, therefore planting regulations need to be monitored extremely closely to avoid loss from farm cross pollination. Another factor for farmers to contend with is the environment. This is because a large portion of the seeds will come from cooler climates, so when they come into the heat and humidity of Thailand, there is that added layer of

risk of loss if you haven't chosen the right genetics for your location.

As continuity and consistency for industrial raw material production is a necessity, seed supply is still a massive concern since the current regulation does not allow for imported seeds to be stocked at all. Every imported seed must be ordered crop-by-crop, this creates a zero buffer for seed inventory.

Seed suppliers' proprietary on strain development is a prerequisite in Thailand, but currently on exemption, which means anyone can freely register a purchased seed as their own with little or no jurisprudence of strain origin. In order to make sure you are planting exactly what you intend to plant I recommend that farmers rely on proven seed genetics that have been imported from only reputable companies.

Is there anything else you would like to add?

Due to the pandemic and regulation flip-flopping the Thai Cannabis market has kind of reset itself, it's now on day-zero. There are lots of opportunities but a lot of risk applied to it especially before Q3 this year. However, although slow, we are surely pressing ahead. I like the fact that the government is focusing on industry sustainability and integrity model, rather than opting for an overinflated pump and dump over-subscription of market suppliers' systems. The market requires Know-How and Education throughout the supply chain, a good local partnership would result in dramatically increasing the chances of success. End-Products sourcing would be a great choice for international trades rather than investing in cultivation and extraction. It is only a matter of time and proper investment in the right areas until we see the long-term success of the Thailand Cannabis industry.

THE MIRACULOUS





DR. GRINSPOON

BARNEY'S FARM STRAIN STORY
WORDS & PICS: GREEN BORN IDENTITY - G.B.I.

WHAT IS AVAXHOME?

AVAXHOME-

the biggest Internet portal,
providing you various content:
brand new books, trending movies,
fresh magazines, hot games,
recent software, latest music releases.

Unlimited satisfaction one low price

Cheap constant access to piping hot media

Protect your downloadings from Big brother

Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages

Brand new content

One site



AVXLIVE ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open <https://avxlive.icu>

They appear like some kind of endangered exotic species struggling for survival in secluded habitats in their native countries. And, apart from that, are devotedly cultivated by merely a handful of people, just as is the case with orchid devotees. Well, this scenario is sadly true for the species called cannabis sativa – pure sativa landraces have long been on the retreat in their native countries and are increasingly hard to find there. Because since at least the new millennium the farmers in these original provenances have more and more turned to higher yielding and faster flowering turbo genetics from commercial seed companies that are easy to get in times of globalisation. And those few in Africa, Asia or South America still relying on native sativa landraces are sometimes finding it hard to preserve their genetics in pure form as they may get cross-pollinated by highly-bred commercial plants from neighbouring fields.

Yes, pure acclimatised sativa landrace strains are few and far between in the current world of cannabis varieties, not only in the outdoor fields of Asia or Africa, but also in the assortments of all those seed companies. Which is down to the fact they often have a painfully long flowering time and mediocre yield, making them irrelevant for many growers. Because time is money, and electricity is money, too.

BARNEY'S BREEDER DERRY DISCOVERED THE EXOTIC DOCTOR IN LAOS

Particularly big well-known seed companies rarely carry pure sativa landraces in their range of varieties. Barney's Farm is a laudable exception here with their Dr. Grinspoon strain. Yes, the plant behind this fine specimen of a honourable herbal doctor is 100% sativa! Which is endemic to Laos – Derry, the founder, owner and breeder of Barney's Farm, discovered the genetics during his time in Laos and Thailand in the 1980s and brought some seeds to the Netherlands on his way back where he developed the strain through selective breeding. Later on Derry decided to name his heirloom cultivar after Dr. Lester Grinspoon to honour the merits this US American psychiatry professor and cannabis advocate (who unfortunately passed away in June 2020) had acquired in rehabilitating the plant on both a medical and social level.

IN SPITE OF TROUBLESOME SEED PRODUCTION: COMEBACK IN 2019

So the Dr. Grinspoon strain is a true botanical rarity from Asia. Which is still characterised by a good deal of wildness and intractability: Until its comeback in 2019, it hadn't been available for quite some time, due to the exceptional time and difficulty it takes producing seeds of quality with this variety. But then the Barney's breeding team put a huge lot of effort and time into producing decent amounts of Dr. Grinspoon seeds to bring it back to shop life again, much to the delight of the strain's numerous fans. Such an extraordinary variety has likewise extraordinary grow

characteristics of course. The long flowering time has already been mentioned, it's 90-95 days in the Doc's case. His buds, looking highly exotic, are composed of single graceful flower lancets on which calyxes are sitting like separately threaded glistening pearls, richly covered in resin glands. Thanks to the vigorous growth (under artificial lights, they easily grow to 160 cm tall) and multitude of buds though, indoor yields can amount to up to 350g/m². The flower scent is described as having a sourly lemon nature reminding of sumac, the smoke as light in consistency, but nevertheless full-bodied, with tangy tropical fruit aromas, plus a bit of earthiness and honey sweetness. Being smoked or vaporised, Dr. Grinspoon precisely delivers what one would expect in view of its wild exotic sativa look: an energising, very cerebral long lasting-sativa buzz, bright and clear, bringing heightened sensory awareness and focusing.

A BRILLIANT DOCTOR IS ALWAYS GOOD TO HAVE: RESIN RIDER PUTS DR. GRINSPOON TO THE TEST

„A brilliant doctor is always good to have“, said the grower called Resin Rider with a grin and decided to add a Dr. Grinspoon plant to his next grow cycle. With the big size of this sativa beast to be expected, there wasn't enough space for more. Popping the seed was done with ease, three days after he had sown him, the little doctor presented himself above the ground. When the first real pair of leaves appeared, Resin Rider instantly realised that, indeed, it was those very thin classic sativa leaves he had seen in web photos of Dr. Grinspoon plants. Growth speed was high, with the main stem shooting up enormously quickly so that Resin Rider bent it down after 2.5 weeks to ensure things didn't get out of control height-wise later on. But side branches were in a hurry, too, likewise rocketing upwards.

WELCOME TO THE JUNGLE: GROWTH AND BLOOM LIKE IN A FAIRY TALE!

After 3.5 weeks, Resin Rider moved the plant into flowering, with Dr. Grinspoon responding to 12/12 with even further intensified stretching dynamics. Which made it necessary for Resin Rider to bend the two oldest and longest side branches down as well, to tame that vivacious doc anew. The whole plant kept on growing rampant during the first six weeks of flowering, at the same time countless flower lancets with singular calyxes emerged. These lancets looked very similar to wheat spikes and in the course of flowering conglomerated into huge buds that became so heavy at a certain point that they hung down, with their pointed bud shape looking like a swarm of cruise missiles on a trajectory towards the earth, whereas other buds just like birds were sitting up straight on a horizontally grown branch. Thanks to these very differently arranged flower formations and branches, the Dr. Grinspoon plant offered a highly multifaceted appearance, looking completely different from each angle, offering a surprising vision every time. Resin Rider was deeply impressed and fascinated by this imposing flower show: „This is a doctor's fairy tale, the tale of the miraculous Dr. Grinspoon! This plant is so rampant and full of flowers that it reminds me of those tendrils overgrowing everything in „The Sleeping Beauty“. Or of a jungle's wild exotic vegetation... welcome to the jungle - this doctor has



turned out to be a real bush doctor! Who totally blows my mind. And what I hadn't expected: These flower spikes are extremely resinous! Calyxes are super-crystalline, encrusted with thick trichome layers, and those many little sugar leaves surrounding them are also full of resin glands. Which makes these gracefully built sativa buds seem like an utterly potent concentrate, I bet they pack a tremendous punch and just cannot wait to test this weed extravaganza. Also because the scent is another true highlight, basically reminiscent of Haze, but with a slight pine note and dash of lemon added.

RESIN-DIPPING SILVER SPIKES IN VAST AMOUNTS, WITH A MOUTH-WATERING TROPIC SCENT

14 weeks the miraculous doctor spent in the blooming stage before he reached maturity more or less at the end of the harvest window stated and Resin Rider put an end to that massive spectacle. Dr. Grinspoon stood 1.3 m tall in the end, but it would have been about 1.7 m if Resin Rider hadn't bent it down. To underline that wonderfully wild exotic look of the buds, he left all the smaller and partly also bigger flower leaves uncut. The dried flowers were sativa-style in the purest of forms then, with those countless resin-dipping silver spikes looking oh-so elegant and classy. "This is as exotic as it gets, say hello to Laos!", Resin Rider happily said to himself. What also took him on a mental journey to South East Asia was the mouth-watering tropic flower scent which had remained almost unaltered after the drying process, still blending Haze with pine and lemon, but with a hint of honey sweetness in the mix now, indeed. It was a huge pile of buds that Resin Rider put on the scales after four weeks of drying and curing which made him experience the next Dr. Grinspoon wonder: The miraculous doctor weighed in at stunning 173 grams! Rejoiced Resin Rider, "this tops it all off! Dr. Grinspoon has widely overshoot the official yield stats and delivered a real shipload of buds – I am pretty speechless now."

THE SMOKE TEST: DR. GRINSPOON PROVES TO BE A SUPER SENSORY SHARPENER

Full of happy anticipation, Resin Rider rolled his first three-quarter gram Dr. Grinspoon sticky with just a pinch of tobacco. Before he lit it, he sang that 1980s Thompson Twins song: "Doctor, Doctor, can't you see I'm burning, burning", and laughingly added "...a doobie!" Tasting Dr. Grinspoon, he felt like taking part in a dégustation de champagne, so tenderly the pleasantly mild, yet full-bodied spicy flavour played on his palate, leaving piney, lemony and sweet notes that were blending perfectly well. With a first voluminous draft down his lungs, Resin Rider instantly felt that "wakey wakey effect" typical of high-class pure sativas, his eyes popped open and there was a slight prickling around his temples. The second one caused his entire body to gently vibrate and he sensed a crystal clear, slightly euphoriant head buzz. Which after a few more puffs culminated in pure bliss that was characterised by a sense of inner calmness and balance, combined with enhanced sensory perception and highly focused attention – Resin

Rider seemed to see and hear better, he felt incredibly aware of everything around him. Now he also had a much clearer and more positive view on a certain issue that had occupied him for quite some time. Dr. Grinspoon proved to be a super sensory sharpener, a mentally invigorating sativa strain that wasn't overpowering, not leading to racy thoughts or physical restlessness. "What a fantastic mental tonic", Resin Rider enthused. That euphoriant, stimulating but yet calming state of mind lasted more than two hours, of course gradually levelling off at a certain point, but not transitioning into fatigue or tiredness.

Concluded Resin Rider, "what an ingenious doctor! Dr. Grinspoon has bestowed me with the greatest, most exotic and unique cannabis experience I ever had. A fairy-tale growth and bloom performance was followed by a monster yield and sensational smoke experience that brought a gourmet flavour and a unique mental wellness effect. The Dr. Grinspoon strain is Barney's Farm's wondrous sativa gift to the world of cannabis and a lovely homage to the great Lester Grinspoon!"

CULTIVATION DATA:

Genetics Dr. Grinspoon (100% Laotian sativa)

Vegetative stage 3.5 Wochen (after germination)

Flowering stage 98 days / 90-95 days in general

Medium Plagron light mix soil, 12.5 litre air pots

pH 6.3-6.6

EC 1.2–1.8 mS

Light up to 6 x SANlight S4W = 840 watts (area: 2.25 m²)

Temperature 19-28°C

Air humidity 40-60%

Watering by hand

Fertilization Organic Bloom Liquid + Organic More PK from Green Buzz Liquids

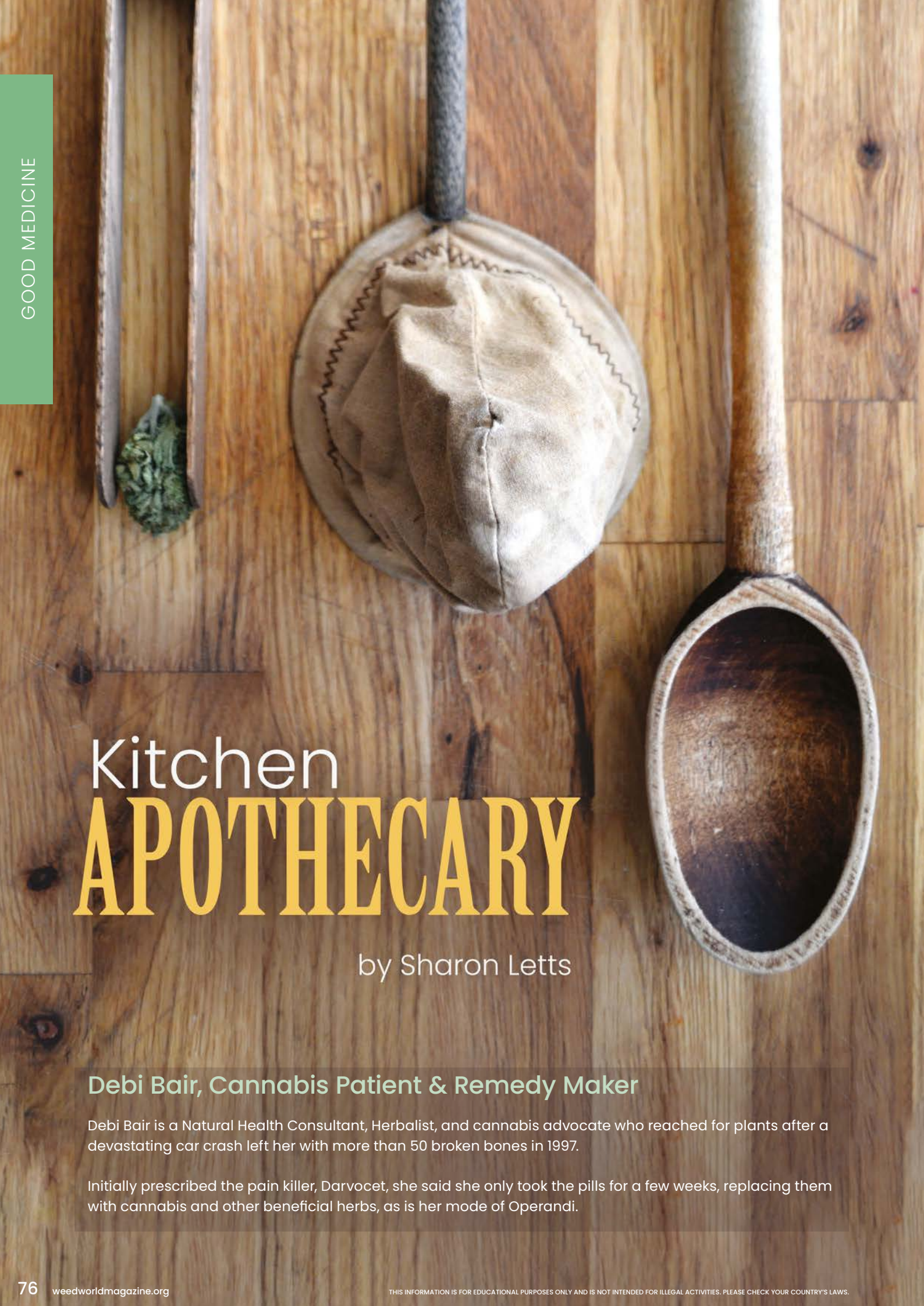
Additives/stimulants Alfa Boost from Steckit, Big Fruits from Green Buzz Liquids

Tools CleanLight Pro for mould prevention

Height 130 cm

Yield 173 g





Kitchen APOTHECARY

by Sharon Letts

Debi Bair, Cannabis Patient & Remedy Maker

Debi Bair is a Natural Health Consultant, Herbalist, and cannabis advocate who reached for plants after a devastating car crash left her with more than 50 broken bones in 1997.

Initially prescribed the pain killer, Darvocet, she said she only took the pills for a few weeks, replacing them with cannabis and other beneficial herbs, as is her mode of Operandi.

"My grandmother was full Cherokee, so herbalism is natural for me," she shared. "I've always used plant medicine."

Concerned about getting addicted, she initially just smoked cannabis to quell the pain.

"Cannabis wasn't legal in my home state of Michigan at the time, and edibles were hard to come by," she said. "I had minor children at home and a medical state licensure I was putting at risk by using cannabis."

Bair had worked in the healthcare industry as an Emergency Room Technician (EMT) and was also a certified herbalist, taught by an instructor through Susan S. Weed since 1998.

Susan S. Weed is an herbalist and author of many books, including *Healing Wise*, *Abundantly Well*, and *Menopausal Years: The Wise Woman Way*.

"Doctors told me I'd never work again, but I was back to work four months after the accident," she explained. "I finally left EMT job in 2008, due to a torn labrum - but it wasn't clear if that was from the accident."

Recently, she moved from Michigan to California, re-establishing Lil Debi and Happy Camp Trees in San Diego. Lil Debi is her herbal remedy brand, and she organizes retreats under the shingle, Happy Camp Trees.

When asked how she derived the name, she replied, "We are cannabis-friendly, and they are happy trees! I don't want shame with this concept; this is medication, it's legal, and I don't want people feeling awkward or weird about partaking while enjoying a healthful and



spiritual retreat.

Bair had bought 20 acres near Tippy Dam in the Manistee National Forest, with plans of turning it into a 420 friendly campground. Still, local officials, then the COVID pandemic threw a wrench in the works, and she decided to relocate to cannabis-friendly California.

"We are planning a girl's trip in May with a female Chef from Detroit - Chef Marjorie Harvey," she said. "We'll gather in San Diego in a private setting, with 10 women

guests who we'll treat with cannabis-infused dinners, plant medicine, healing, and spiritual awakenings."

Chef Marjorie Harvey of Divine Epicurean took Third Place for Best Cannabis Chef in Michigan in 2021.

Bair ingests cannabis in many ways and smokes for an immediate lift. Still, she initially developed her pain relief cream to treat osteoarthritis after the accident. Her pain tolerance is high, but she said she needs a heavy hitter for relief when it hurts, and that's what this pain cream does for her.

She shares her homemade infused goods on her

Instagram feed, posting everything from cookies, candies, medicinal capsules, and topicals to bath bombs for relief.

"This recipe is specifically for arthritis pain, although I've had rave reviews from neuropathy patients, as well - with them stopping the use of pharmaceuticals altogether since using the cream," she said. "One patient is in her 80s and had never used cannabis in her life. To me, that's real progress for this amazing plant."

Bair said that one four-ounce jar lasts her about a month. Use is dependent on need.



Lil Debi's Pain Relief Cream

Mix for cream

- **3 T. cayenne pepper**
- **1 c. infused coconut oil (can also use grapeseed or olive oil)**
- **½ c. beeswax**

To make infused coconut oil

- **Decarb 1 oz. cannabis***
- **Infuse organic coconut oil with cannabis in a slow cooker****
- **Strain through cheese cloth**

*decarboxylation: Spread cannabis over a baking tray, bake in the oven at 220 degrees for 20 minutes.

**Infuse oil: 1 oz. decarbed flower per one pound of butter or ghee - or whatever oil you'd like to use. Simmer on low in crock pot or rice cooker (lid up) for 3-4 hours to infuse.

Method

- **Melt the beeswax in a double boiler**
- **Add THC infused coconut oil & cayenne pepper**
- **Once blended, place in a glass jar**

Follow both Lil Debi and Camp Happy Trees on Instagram.



CHEF
**SEBASTIAN
CAROSI**

cooking with carosi

Anytime is the best time to make heirloom tomato toast in my opinion. As a professional chef of over thirty years, I've learned that picking products at their peak of ripeness really depends on where you live, but for heirloom tomatoes it almost always starts early in summer and ends in the fall. Almost as much of a fad as the ubiquitous avocado toast in Southern California, the heirloom tomato toast with mayonnaise has not only been a hundred-year fad in the American south, but a seasonal staple. I know whole heartedly, I lived many years in the American south and became an official heirloom tomato toast specialist. I'm very proud to be involved with the transition in acceptance when it comes to fresh cannabis in the kitchen. Having licensed farm raised hemp and cannabis greens on the American market for chefs, restaurants, and juice bars to utilize shouldn't be far off with the way things are moving these days. I definitely can't wait for these protein dense greens to be readily available around the country, to satisfy all your tomato toast needs sometime in the next few years (unless of course you are a home grower, then you will have plenty fresh young cannabis leaves). I thoroughly like to sprinkle the thick sliced heirloom tomatoes with a nice amount of local sea salt flakes and a few fresh green coriander seeds from my garden. I then slather the toasted sourdough with smoky bacon fat mayonnaise- in true heirloom tomato toast fashion that is. The bacon fat mayo is super simple to make and downright stupid good to try on your favorite tomato and mayo sandwich at the beginning of heirloom tomato season. Remember to slather it on heavy, to cut the tomatoes thick, and don't be shy with the sea salt flakes...

heirloom tomato + cannabis leaf
+ smoky bacon fat mayo toasts

recipe

prep time: 15 minutes

wait time: 20 minutes

yield: 5 toasts

total thc/cbd: depends on the potency of the products used

status: downright delicious stoner snack

from the cannabis

pantry: cannabis bacon fat, cannabis hot sauce, cannabis butter

chef's strain

recommendation: blue cheese (blueberry x uk cheese a skunk #1 phenotype)

equipment needed

Medium stainless-steel mixing bowl, whisk, chef's knife, cutting board, food processor, serrated knife, serving platter or plates.

provisions needed

5 slices your favorite artisan sourdough bread (cut $\frac{3}{4}$ inch thick)

$\frac{1}{4}$ cup cannabis infused butter (made in the mb2e)

3-4 medium misc. heirloom tomatoes

$\frac{1}{2}$ - 1 cup smoky cannabis bacon fat mayo

1 ½ cups fresh young cannabis or hemp leaves
1 tbsp jacobson sea salt flakes
1 tsp fresh cracked pepper
2 tsp fresh green coriander seeds (optional)

smoky cannabis bacon fat mayo

½ cup of cannabis infused applewood smoked bacon fat (at room temp) (made in the mb2e)
1 tbsp chipotle adobo (contents of the can pureed smooth)
1 ½ cups of mayonnaise (dukes mayonnaise if you can find it, if not you are going to hellmann)
1 tsp cannabis hot sauce (made in the mb2e)
½ cup fresh cooked bacon bits (very small + crispy)

how to make it

for the mayo

- put all the ingredients in the bowl of a food processor and mix well.
- add a ¼ cup of super crispy bacon bits to the mayo.
- mix well, place the mayo into an airtight container, refrigerate.
- use liberally.

to assemble the toasts

- toast the bread slices to your liking, butter each slice with a little cannabis butter.
- slice the heirloom tomatoes as thick as you'd like them.
- slather each piece of the toasted sourdough bread with as much smoky bacon fat mayo as you'd like.
- then sprinkle a nice amount of hemp or cannabis greens on each toast.
- top the greens with three or four various sized tomato slices on each toast.
- season each toast with salt and pepper.
- garnish each toast with a sprinkle of fresh green coriander seeds and a little more sea salt.
- serve and enjoy with udder delight.

Equipment and product sources

www.jacobsensaltco.com (local sea salt)
www.magicalbutter.com (mb2e botanical extractor)

Chef Sebastian Carosi: A Short-order Cannabis Revolutionary

Sebastian Carosi is a farm-raised, old-school culinary professional with over twenty-five years in the restaurant and hospitality industry and a pioneer in the country's 'farm 2 fork' movement.

Chef Carosi is an avid Pacific Northwest forager and wildcrafter, living off the grid for several months each year in the foothills of Mount St. Helens. These wild edibles are expressed throughout his hyper seasonal menus.

While he has been cooking with cannabis since the mid 90s, Chef Carosi currently offers his expertise to the cannabis industry in the form of cooking with cannabis educational culinary demonstrations, product research & development, cannabis production kitchen design and upfits, production kitchen staff training, standardized recipe development, terpene fortification, dosage calculations and formulas, production schedules and staffing needs, production equipment training, conference cooking demonstrations, full spectrum cannabis consumption, responsible diabetes control through cannabis, private cannabis dinners, cbd and terpene-fortified cocktails and mocktails, everyday cooking with cannabis and the health and nutritional benefits of cannabis in your kitchen.

#shortordercannabisrevolutionary - IG: @chef_sebastian_carosi
Twitter: @chefcarosi | Weedtube: @chefcarosi



THE WEED TRAVELER



VAN PHOTO BY NUBIA NAVARRO (NUBIKINI) FROM PEXELS

By Sharon Letts

Historic and Multi-Generational Farmers Struggling in a Legal Market

When the sixties children left San Francisco after the Summer of Love ended (1967-1969), many-headed north to live sustainably off the land, called Back to the Landers, grew their food, and farmed cannabis.

Cannabis was made legal for medicine in California in 1996, with little to no ordinances drawn until just before legalization in 2016. Supply and demand were met through a loosely based medical cooperative, similar to a Cooperative Sustainable Agricultural program (CSA), where farmers, caregivers, and patients worked together.

When California legalized, everyone knew the Bill wasn't perfect, with many predicting the devastating collapse of the small farmers to the north, who began the industry and created many of the cultivars we enjoy today around the world.

But no one could have predicted they would soon be in the same predicament as the country's food farmers - unable to cover the cost of farming, with reimbursement dropping from \$3,000 to \$4,000 thousand dollars a pound to a mere \$400.

The only difference between food and cannabis farmers is that the U.S. Government isn't stepping up to subsidize the cannabis farmers having to call it quits, as they do in the mainstream agricultural industry. There's no safety net for our historic heritage farmers to the north in California and no competing with large-scale corporate operations.

One thing is clear, the craft cannabis grown outdoors in the sun in some of the richest soil in the world cannot be compared to its indoor cousin, supported by electric lights.

Witnessing

Note from Sharon: In October of 2021, my associate, Farah Tariq, Esq. and I went on a farm tour encompassing the Emerald Triangle (Mendocino, Humboldt, and Trinity counties) beyond, on a road trip that lasted nearly a month.

Farah is a Harvard-educated attorney who spent ten years in Manhattan in New York, selling her soul in corporate law, then crossed over as in-house legal counsel for cannabis corporations. She especially needed to witness, meet the farmers and learn the other side of the industry from their perspective.

Our goal was to visit heritage farms and listen to their stories. These three farms from three counties within the Emerald Triangle are just a few small craft farmers currently struggling in the new legal market.

Heritage: Denoting a traditional brand or product regarded as emblematic of fine craftsmanship

Swami Select, Mendocino

Swami Chaitanya & Nikki Lastretyo

Originally from the State of New Jersey, Swami Chaitanya moved to San Francisco after partaking in cannabis for the first time in 1967.

"Swami grew his first plants on Telegraph Hill in 1978," partner Nikki Lastretyo shared. "He came to San Francisco as a full-on hippie. I was born and raised in the city - a flower child forever - first smoking pot in 1969 with a neighborhood garage band. Changed my life. I attended San Francisco State University, and I say I studied business, but all my experience at that time came from dealing weed on campus."

Ever humble, Nikki's background is in journalism, working at the San Francisco Chronicle and for KRON-TV during the 80s and 90s.

Swami attended Wesleyan University in the State of Connecticut. A Fulbright Scholarship recipient, he studied German Literature in Germany; then participated at the State of Wisconsin, earning a Masters in history, with a minor in photography; ending up at the University of Pennsylvania and the Annenberg School of Communications.

After meeting, the two traveled the world, spending formative time in India and Asia.

"We were living in the Himalayas and had many neighbors growing ganja,"

SWAMI & NIKKI



Swami explained. "When Nikki returned to California, she met Tim Blake and started working on his farm - which was illegal at the time."

When Swami returned from India, they chose Mendocino, then acquired the ranch with the intent of making it into a sanctuary - planting cannabis was two-fold, as an income and for their use.

Clean Green certified since 2011, Swami Select sits on 190 acres and is the longest-running brand in Mendocino County. Its crop is planted in the shape of a Sri Yantra, with sacred statutory and temples honoring several traditions throughout.

On its website are cultivars Magic Melon, sourced from the historic Humboldt Seed Company, and Raspberry Parfait, full of flavorful terpenes, myrcene, limonene, and ocimene. Krishna Andavalou, the host of Viceland's Weediquette, called Swami Select, The Dom Perignon of cannabis."

"Our farm is very special; we have a vast, flat meadow up in the mountains - perfect for growing - it's our little valley," Nikki said. "We established Ganja Ma as the Goddess of cannabis and incorporated her blessings into all we do."

Using regenerative farming methods in full-sun, typically using seeds they've harvested themselves, in living soil that's been growing for many years. All of this, combined with their spiritual practices and Swami's

intuitive method of working with the plants, make their cultivars special.

"Right now, we only sell beautiful sun-grown flowers," Nikki said. "Our cannabis is unique because it's aged - we store it extremely well, so it's still super fresh a year later - testing higher for CBN than most - making it more relaxing, with a super smooth smoke."

Education and outreach are everything to this small farm, and marketing their brand gives hope they can survive the harshness of the legal market.

"Swami is a founding member and sits on the Board of Directors of Origins Council," she continued. "We are both flower judges in Tim Blake's long-running Emerald Cup, which he started just down the road from our farm in 2004."

Recognizing this type of craft cannabis farming is crucial to their survival. The two hope that cannasseurs will see the benefits of the full terpene and cannabinoid profile of sun-grown cannabis - which they've come to know as being better and healthier for humans for flavor and effect.

"The small farms must survive, as we fulfill a need for purity and sophistication of a fine flower made flavorful from the sun," Nikki surmised. "So many have had to quit due to the high costs and unfounded requirements of the State, County, and various agencies - namely Fish and Wildlife, and Water Board. But those who do survive will be here to supply quality over quantity - that's what we do and will continue to do."

For more information on Swami Select visit, www.swamiselect.com

Huckleberry Hill Farms, Southern Humboldt John Casali & Rose Moberly

His earliest memories are of learning about growing food and cannabis from his mom. When John Casali was five years old, his mother moved them from San Francisco to the farm that would become Huckleberry Hill Farms. They lived sustainably until CAMP was enacted and the helicopters came.

"My mom and stepdad decided the local fishing industry would be safer, and they left the farm to me," he shared. "When I was 24, my buddy Todd Wick and I were raided, then arrested a year later."

They were each sentenced to ten years in Federal Prison and ended up working on a government farm associated with the privatized prison system for profit for about 12 cents an hour.

"We were experienced farmers, licensed to operate heavy machinery, so we continued to farm in prison," he said.

The purpose of prison is to reform, but Casali said he had little in common with the other prisoners from the failed War on Drugs within the drug recovery program.

JOHN & ROSE



"I learned about drugs in prison," he revealed. "I learned about addicts and how they lose their ability to control what they consume and how much. I don't believe cannabis falls into that category at all."

After serving eight years, less than two years for good behavior, Casali returned to the farm he loved within the newly created medical market, made legal the year he entered prison in 1996.

"50 people were waiting to help me get back on my feet because they know it could happen to anyone," he said. "I never had any doubts I'd continue to farm this plant."

With sentimental and ornamental gardens and statuary throughout the farm, Casali and Rose have created several cultivars in memory of those who have passed.

"My mother died while I was in the prison of a heart attack on the fishing boat at sea," he explained. "She taught me everything I know about farming. This farm is her legacy."

To honor her, they created a new cultivar from a favorite strain she created, Paradise Punch, by crossing it with both Blueberry Kush and Lavender Kush to make Mom's Weed.

When Rose became part of his life on the farm, Casali said it could no longer be just about him.

"Rose's mom, Margie Zietz, passed away from cancer in 2020," he said. "We took Paradise Punch and crossed it with Rose's mom's favorite strain, Wishful Thinking, creating Margie's Magic."

Another cultivar created, Whitethorn Rose, used the same cross as Mom's Paradise, crossed with Lemon OG, which spoke to this writer. Created in honor of a town in Southern Humboldt lost to raids.

"Whitethorn was a big part of my childhood," he said. "When the raids began, many of the small towns supporting farms turned into ghost towns."

Casali said he and Rose are grateful to work the farm for another season.

"To be able to farm this land that my mother found for us and loved is everything," he surmised. "Did I take it for the team in prison? Yes and no. We are going forward with love and good intentions for this life we love on the farm. That's really what it's all about."

For more information on
Huckleberry Hill Farms visit,
www.huckleberryhillfarms.com

Sol Spirit Farm & Sol Spirit Retreats, Trinity County

Walter Wood &
Judi Nelson

Walter Wood and Judi Nelson have been farming on the same spot, on the south fork of the Trinity River, for 20 years.

Walter and Judi met at a memorial for Jerry Garcia of the Grateful Dead in Los Angeles just after. When Judi wanted to go to the Rainbow gathering in Mexico, someone asked

Walter to work on a bus to travel there.

"We never found the gathering but had a great time and smoked a kilo of bud in no time as we wandered down to Mexico and back," he laughed.

Walter worked for Los Angeles Water & Power and acquired a permanent back injury when he discovered that cannabis significantly reduced spasms and pain. The couple ended up in Louisiana together for Judi's work as a Physical Therapist. But with a lack of cannabis, they headed back to California, initially growing their own indoors in the City of Arcata, where they landed in Humboldt County before they settled on the property in Trinity County.

"We became homesteaders," Walter explained. "Our farm is organic and sustainable, grown in the sun cannabis. Our home is off the grid, made with straw bales. We have chickens and a few pigs with which we do intensive rotations, conditioning the soil as they graze."

"Earth Conscience Cannabis" is its slogan, with Walter stating that most of the regulations under the legal market seem out of step with the farming of and the harmless nature of the plant.

"Environmental stewardship is our goal, producing exceptional craft cannabis," he added. "Our team is small, but they are seasoned craft cultivators, producing small batches. We grow with intention and love."

Walter said that growing in native soil allows the plant to express the terroir that's made the region famous fully. Cultivars such as Sol Cookies, Sol Shine, Mother's Milk, and the classic Sour Diesel don't disappoint.

To open up to the community at large, as well as subsidize the farm, Judi has turned a flat meadow into glamping grounds, offering up overnight stays in well-suited glamping bell tents with real beds and linens. As a plus, each tent has its private bathhouse with hot running water and fluffy towels.

"Our breakfasts are farm to table," Judi said. "We use organic eggs, produce and livestock from the farm, and locally sourced goods from other farmers in the area. Stays include guided tours of the farm by our master cultivator."

Guests have enjoyed seeing how the farm clones, plants, grows, harvests, and manicures their flowers for market. They also can take advantage of river rafting on the nearby Trinity River or attending a Zumba, Yoga, or Pilates class for a fee.

"The plant is sacred medicine, and it's a massive part of our lives," Walter concluded. "We hope that our guests will come away excited and inspired to join a regenerative future. We hope that the small, craft sun-grown farmers' products are realized for their quality soon so that we can survive corporatization and commodification of this sacred plant."

www.solspiritfarm.com
To book a retreat at Sol
Spirit Retreats visit,
www.solspiritretreats.com



Growing different strains together

OUTDOORS

By Dutch Passion Seed Company | dutch-passion.com

Many outdoor cannabis growers enjoy growing several different strains together. This allows you to assess the suitability of different outdoor strains at your particular grow location/latitude. If one strain doesn't perform you have back-up from various other strains. And you also have the option to run autoflower strains alongside your photoperiod feminised varieties. This can guarantee you some buds before the feminised strains are ready.

Growing several different strains, perhaps at different grow locations, may allow the outdoor grower to spread the risk and maximise chances of a harvest. But growing different strains alongside each other may present certain challenges too.

PROS AND CONS OF GROWING DIFFERENT STRAINS TOGETHER

Growing a tall, towering outdoor sativa right next to your short indica plants may mean the indicas receive relatively little sun. The experienced guerrilla grower often spends quite some time searching for new grow locations, prepping the plot, trimming down surrounding weeds and planning the outdoor grow calendar.

This will often include decision making about which strains to grow alongside each other at each of the grow locations. Many experienced guerrilla growers deliberately plant different strains together when growing outdoors.

There are several pros and cons to consider:



Dutch Passion's Purple #1, grown outdoors

Pros of growing different strains together outdoors:

Spread the risk.

Weather or pest problems could wipe out a single-strain grow if you get unlucky. Having several proven outdoor strains is good insurance just in case you get unlucky with the climate, pests etc.

Harvest at different times.

Base your entire harvest on a single strain and you could have issues if end-of-season storms arrive before your preferred strain has finished. That's why many people like to run a few different outdoor photoperiod feminised strains. For the same reasons, many like to plant some autoflowering cannabis seeds at each of their outdoor grow plots. These are often ready to harvest in mid-summer and guarantee the outdoor grower an early harvest. Many often enjoy 2 or even 3 successive outdoor auto crops.

Enjoy a variety of buds in your jars!

Many seasoned outdoor growers enjoy having a range of varieties to enjoy rather than a single strain. This allows you to sample from indica, sativa or hybrid buds - choose the right strain for the moment and the mood!

Enjoy the experience of growing with different genetics.

Improve your grow skills and knowledge by watching different types of genetics (indica, sativa, feminised, auto etc) grow alongside each other.



Purple #1 and Frisian Dew trimmed buds

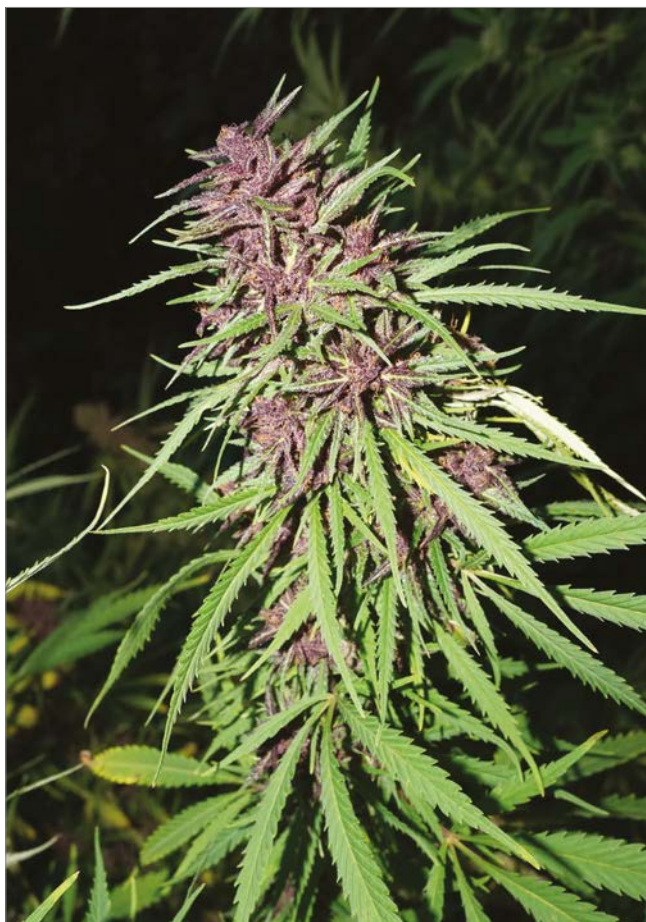
Cons of growing different strains together outdoors:

Different cannabis strains can have radically different growth patterns, stretch and final height.

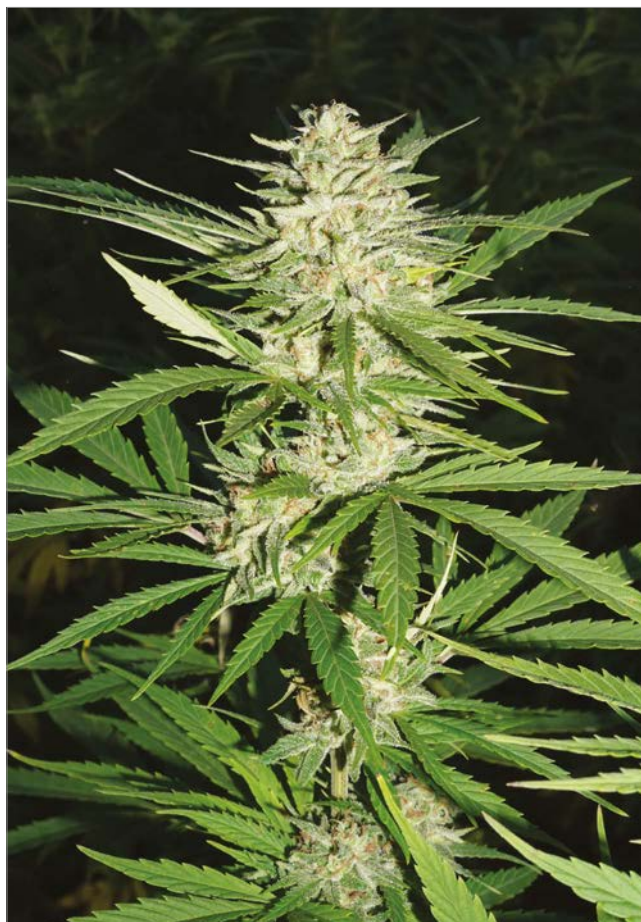
Understand the properties of your chosen strains and plant accordingly, allowing sufficient space. You may need to top or super-crop to maintain a level canopy.

Some strains may be heavier feeders than others.

This is something you may have to account for with e.g. top dressings of bloom nutrients etc.



Dutch Passion's Purple #1, grown outdoors



Dutch Passion's Think Fast, grown outdoors

Different strains may have different harvest dates.

Your autos may be ready to harvest a month or two before your photoperiod feminised strains. This will mean due consideration to aspects such as repeated visits to your plots to assess and harvest. Regular plot visits can create security concerns for some growers. You will also need to think about drying your harvest (indoors?) in batches if the plants require different harvest dates.

HOW TO CHOOSE THE MOST SUITABLE CANNABIS SEEDS

One of the trickiest jobs for the outdoor grower is finalising their list of preferred cannabis seeds. Often this will include some old favourites as well as perhaps one or two new strains for assessment. It's vital to understand your outdoor growing season well. When are the first and last frosts? How long does the autumn/fall weather remain viable?

Research your strains carefully and select some reliable varieties to be the backbone of your grow. This can include proven outdoor feminised photoperiod strains as well as some autos. 'Fast Feminised' strains, such as Dutch Passion Think Fast, are also very popular repeat buys with outdoor growers.

You will find good outdoor strains available as indica, hybrid and sativa genetics. Autoflower seeds typically take around 75 days to grow from seed to harvest indoors. Outdoors the cooler temperatures often mean you can add around an extra 2-3 weeks to that. If your grow season is very short

then auto seeds become increasingly relevant to your needs. If you enjoy a long growing season you will be able to consider multiple auto harvests as well as a wider selection of outdoor feminised photoperiod strains. The experienced outdoor grower knows just how good the latest autos have become. Fast, easy to grow, heavy yielding and with 20%++ THC levels - they have a lot to offer the guerrilla grower.

MULTIPLE DUTCH PASSION STRAINS GROWN OUTDOORS CASE STUDY

A recent outdoor grow in The Netherlands used Dutch Passion strains Purple #1, Think Fast, Durban Poison, Frisian Dew and Passion #1. All the strains are solid outdoor choices, they have broadly similar stretch tendencies meaning that no one strain outgrew and dominated the rest. Any plants that were looking a little too tall were simply topped/super-cropped to restrict vertical growth. This is one way of ensuring a relatively level plant canopy as well as protecting the grow location from prying eyes.

All were grown on some unused outdoor land. Soil quality was average and summer weather conditions were cool and grey with ample rain. Poor early season weather meant that the strains were germinated indoors and grown under indoor light for 5 weeks before planting outdoors in mid-May. Around another 2.5 months of outdoor growth followed before the first signs of bloom on the plants. The grow location was around 6m x 4m and contained around 20 plants.

The grower used slow-release organic nutrients from



Dutch Passion's Purple #1, Think Fast, Durban Poison, Frisian Dew and Passion #1, all grown together outdoors

BioTabs. The plants were grown directly in the ground, without containers. They were hand watered and visited once a week. During the first few weeks in the ground (after being transferred from their indoor starting pots) your plants may not yet have developed a full outdoor root structure. Therefore one important tip is to remember to water generously at this stage - especially in dry conditions.

By the end of July all plants had reached between 1-2m tall and were growing well. Plants in the centre of the grow location had up to 10 hours of direct sun each day with a few more hours of semi-shade. By mid-August the first signs of bloom were present. Early flowers were forming and these gradually became fatter. Purple #1 and Think Fast were both harvested at the end of September, with some phenotypes looking 'almost' ready as early as mid-September. Think Fast uses recessive autoflower genetics to deliver particularly early harvests - useful if you have a short grow season. The buds are particularly potent and frosty. Purple #1 delivers trademark purple blooms with unique visual bag appeal.

Frisian Dew is a recognised outdoor champ, robust and resistant to mold/bud rot. She is typically ready to harvest nearer early/middle October. The grower noted the pink Frisian Dew buds were somewhat more potent than the Purple #1 though not as potent as Think Fast, the overall potency winner from this outdoor grow. The blooms from Frisian Dew were amongst the largest from the grow.

Durban Poison won the growers vote for best all-round strain on this grow. Although the buds weren't quite as potent as the Think Fast, Durban still delivered a powerful effect with a pleasing combination of good yields, great taste and plants that were particularly easy to grow. Passion #1 can grow tall

if left unmanaged but can be relied on for her notoriously enjoyable buds and heavy yields.

HIGHLIGHTS OF THE OUTDOOR GROW

Seeing all the plants in heavy bloom around late September is always rewarding. Every guerrilla grower loves seeing a seasons-worth of effort come together for a harvest. The grower enjoyed the predictable rewards from established outdoor strains such as Frisian Dew, Durban Poison, Purple #1 and Passion #1. But the real highlight for the grower on this occasion was seeing Think Fast for the first time. It's a photoperiod strain with just enough recessive autoflower genetic influence to ensure it is usually the first photoperiod strain you will harvest.

The buds looked as heavily frosted as anything grown indoors and it delivered a powerful, long-lasting high. If you haven't grown a fast feminised strain outdoors yet then it is definitely worth trying. So too are autoflower seeds. None were grown on this occasion, but many guerrilla growers love the short stature, XL yields and fast results on offer from the best auto strains. Dutch Passion continue to invest heavily into new strain research for both indoor and outdoor cannabis genetics, including autoflower and 'fast' strains.

If you're looking to grow some outdoor strains in the coming year don't be afraid to mix things up and use a blend of outdoor strains. You will be in good company and will benefit from a wider selection of buds to enjoy at harvest time. Good luck and enjoy your grow!



Dutch Passion's Frisian Dew, grown outdoors



Dutch Passion's Durban Poison, grown outdoors

THE **az** to

OF HEALTH COMPLAINTS

Sleep Paralysis

Sleep paralysis is when you cannot move or speak as you are waking up or falling asleep. It can be scary but it's harmless and most people will only get it once or twice in their life.

What happens during sleep paralysis
During sleep paralysis you may feel:

- awake but cannot move, speak or open your eyes
- like someone is in your room
- like something is pushing you down
- frightened
- These feelings can last up to several minutes.

Causes of sleep paralysis

Sleep paralysis happens when you

cannot move your muscles as you are waking up or falling asleep. This is because you are in sleep mode but your brain is active.

It's not clear why sleep paralysis can happen but it has been linked with:

- insomnia
- disrupted sleeping patterns – for example, because of shift work or jet lag
- narcolepsy – a long-term condition that causes a person to suddenly fall asleep
- post-traumatic stress disorder (PTSD)
- general anxiety disorder
- panic disorder
- a family history of sleep paralysis

Source: nhs.uk

TAKE A LOOK AT THE STRAINS FEATURED ON THE OPPOSITE PAGE. THEY MAY HELP WITH SOME OF THESE SYMPTOMS.



Pink Kush

Barney's Farm

Seeds available from weedworld.co.uk

♀ EXPECT HEAVYWEIGHT EFFECTS

This stunning and highly regarded relative of OG Kush visually defies reality with her breath-taking pink and purple hues. Her flowers are dense and shimmer in the light with glistening trichomes. Many find this vanilla scented jewel the perfect antidote to serious sleep issues as it is extremely effective for both pain and insomnia. Rich in terpenes, Pink Kush tantalizes the nostrils and clears the senses.

Genetics: OG Kush Hybrid
Effect: Sleepy, Sensual
Outdoor Yield (g): up to 600-700
Yield: 600-700 gr/m²
Flowering: 55-65 days
Height: 100-120cm
Indica 80% | Sativa 20%
Taste: Vanilla
Aroma: Vanilla



Cataract Kush

DNA Genetics

Seeds available from weedworld.co.uk

♀ BLANKET OF CRYSTALS IN 8-9 WEEKS!

This is the combination of two known marijuana winners, LA Confidential and OG Kush. The flavour is LA dominate with the OG Kush coming thru in the exhale. The nugs look OG with LA density. The Cataract Kush looks almost grey-black when cured. This is the perfect combination of these two cannabis strains and the high is VERY strong! The effect is good for pain, eating and sleep disorders.

Genetics: OG Kush x L.A. Confidential
Indica 99% | Sativa 1%
Flowering: 8-9 weeks
THC
THC: Very high (over 20%)
CBD: Low
Yield: 350-500 g/m²
Height: Medium



Auto Gucci Dreams

Top Shelf Elite

Seeds available from weedworld.co.uk

♀ EXCEPTIONAL QUALITY

Previously a limited and exclusive collaboration on Chefanna's White Label, This is the Auto version of Top Shelf Elite's Gucci Dreams hybrid. A luxurious mix of one of South Cali's most sought after OG's and Top Shelf Elite's own, unreleased Cookie Glue (San Francisco Sour Dough x Glue Dream). Growing small and compact, with stocky build, this plant loves an indoor setup.

Harvest: 55-60 days
Indoor Yield: Approx 350-450g/m²
THC: 18-20%
Aroma: Earthy Vanilla, burnt sugar and butter
Effects: Euphoric and psychoactive, winding down into a hazy tranquillity and desire to meditate or sleep.



REGULAR



REGULAR

All strains featured here are available from: www.weedworld.co.uk / orders@weedworld.co.uk / 01974 821518



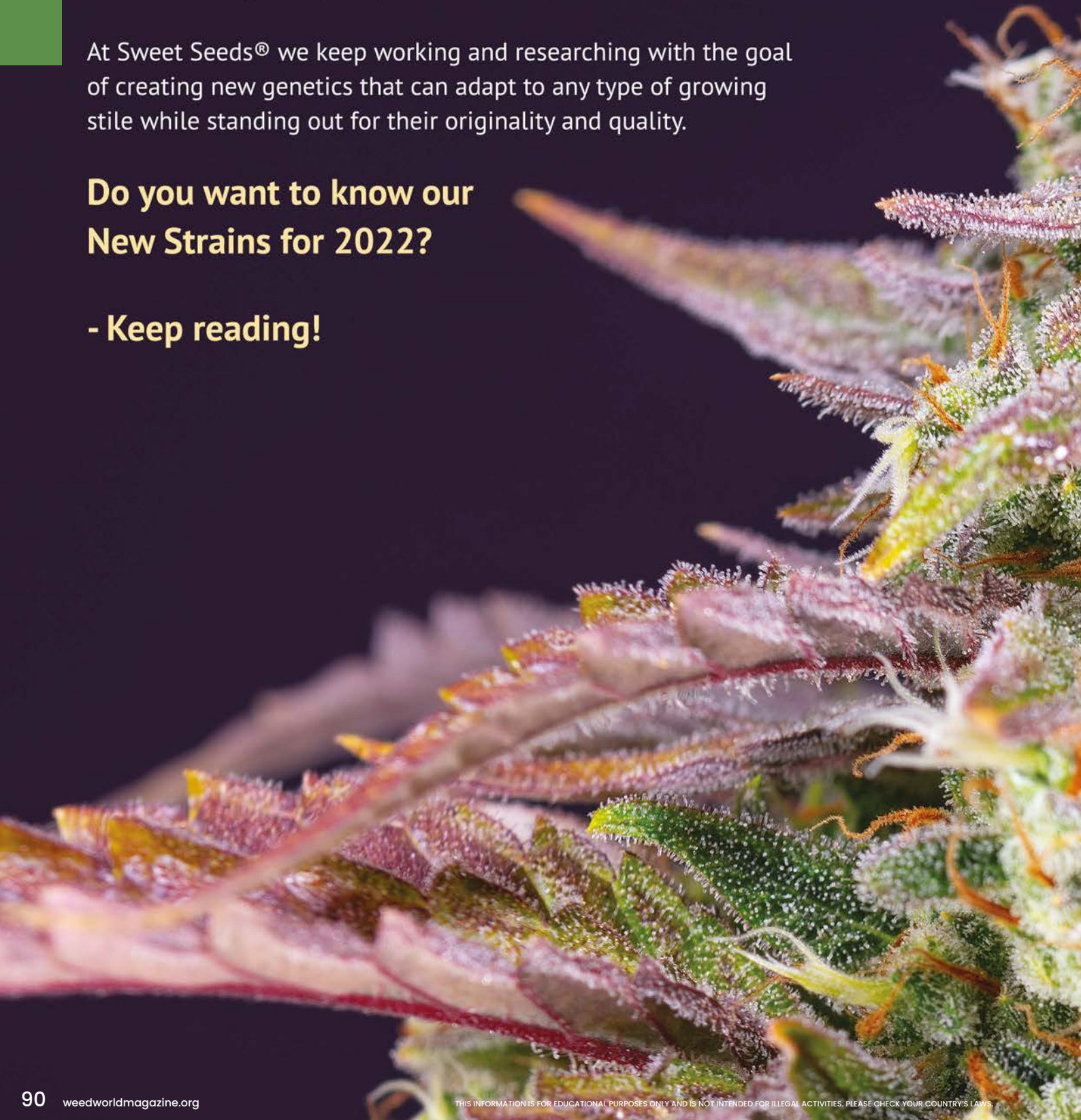
NEW SWEET SEEDS® STRAINS FOR 2022

We are very excited to unveil our new lineup of cannabis seeds. Another year in which we have the honor to continue offering seeds of the highest quality to the cannabis world.

At Sweet Seeds® we keep working and researching with the goal of creating new genetics that can adapt to any type of growing style while standing out for their originality and quality.

**Do you want to know our
New Strains for 2022?**

- Keep reading!





PURPLE PUNCH OG XL AUTO®
SWS96

Why should you choose our strains?

Our commitment is very clear with our customers. We aim to achieve excellence in the creation of genetics with:

- **Maximum quality.**
- **Delicious and intense tastes and aromas.**
- **A 99.9% femininity rate.**
- **Germination percentage higher than 95%.**
- **Very high production of flowers and resin.**

And what better recognition than more than 150 awards distributed among our strains and 3 awards as best seed bank.

To all this, we would like to add that at Sweet Seeds® we were the first cannabis seed bank to launch to the market (in 2013) a range of fast-flowering photoperiod-dependent genetics, the well-known and famous F1 Fast Version®.

So, let's get to it: the best feminized and American new strains for 2022

Our involvement with American genetics goes back a long way. In 2007, we released our first strain from USA genetics, Ice Cool® (SWS06), developed from a line of NYC Diesel. This strain was a great success since its appearance, with 7 awards to prove it. As a good American seed, its potency, production and exotic and intense aromas stands out.

For this year 2022, we bring you a selection of USA genetics, with the goal of bringing you a little closer to full knowledge of the most successful crosses of the American cannabis scene.

Without further delay, we present you our 7 new American strains of intense aromas, great potency and exceptional resin production.

Sweet Mimosa XL Auto® (SWS94)

It's time to discover our most stimulating, cheerful and energetic cocktail. The cross between one of the most valued genetics of the USA, the Mimosa, and our Cream Mandarin Auto® (SWS29).

Its exquisite aroma and citrus flavor of orange and tangerine with earthy touches from the original Mimosa, contribute for a fragrance that is reminiscent of a good cocktail of freshly squeezed juice.

Tropicanna Poison XL Auto® (SWS95)

Tropicanna Poison XL Auto® is our XL autoflowering in every sense: yield, taste, effect and aroma. It comes from the cross between an elite clone of Tropicanna Cookies, "Super Strong" genetics of the famous USA Cookies family, from a purple-flowered phenotype, and our famous purple-flowered autoflowering Red Poison Auto® (SWS39).

It is a high yielder with resin soaked buds that can reach THC levels of up to 24%, without forgetting the high levels of terpenes it generates. Undoubtedly, this strain is loaded with aroma and flavor. Very sweet, intense and dense, with tones of mango and a soft Skunk background.

Purple Punch OG XL Auto® (SWS96)

Here we bring you an XL sized plant perfect for extractions. This 5th Generation autoflowering strain is the result of the cross between Purple Punch OG® (SWS93) and Killer Kush Auto® (SWS56).

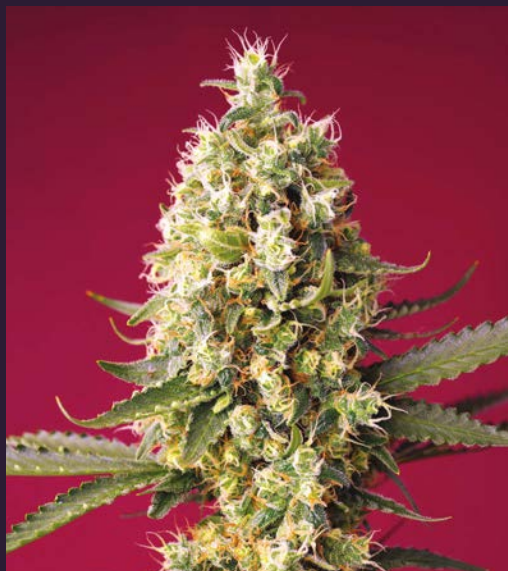
It is a beast in terms of terpene production, with special mention to its sweet and fruity aroma and flavor, with extra spicy OG Kush tones. In some individuals Purple Punch OG XL Auto® can develop beautiful purple or reddish flowers and leaves.



SWEET MIMOSA XL AUTO® (SWS94)



TROPICANNA POISON XL AUTO® (SWS95)



SKYWALKER OG RUNTZ XL AUTO® (SWS97)

Skywalker OG Runtz XL Auto® (SWS97)

We continue with the extra-large American autoflowering strains. Skywalker OG Runtz XL Auto® is a mainly indica strain, with high yields, perhaps from another galaxy, with imperial aromas and tastes. Sweet and fruity, earthy and spicy tones stand out in this strain, mixed with aromas of the Diesel and OG Kush families.

This fabulous autoflowering comes from the cross between a special indica, very on the west coast of the USA, the Skywalker OG (OG Kush x Skywalker) and our Runtz XL Auto® (SWS88).

Gorilla Sherbet F1 Fast Version® (SWS98)

This new strain results from the cross between our autoflowering Gorilla Girl XL Auto® (SWS82) and one of the biggest representatives of the Cookies family in the United States, the Sunset Sherbet.

This strain joins our range of ultra-fast flowering photoperiod-dependent strains, the "F1 Fast Version®" concept, and allows you to reach up to 23% of THC in record time. Gorilla Sherbet F1 Fast Version® is a choice of very powerful aromas and flavors, sweet and fruity, with citrus and woody tones.

Strawberry Banana Gelato XL Auto® (SWS99)

If you are looking for an Extra Large candy, very resinous and powerful, Strawberry Banana Gelato XL Auto® is already featured in our catalog.

This 6th Generation autoflowering strain is the result from the cross between an elite clone of Strawberry Banana and our Sweet Gelato Auto® (SWS76). It stands out for its powerful aroma and sweet and fruity flavor, along with aromas of OG Kush, so irresistible among cannabis lovers. A very fast autoflowering strain that develops huge amounts of resin in its dense buds, with high levels of THC (18-22%), in only 8 weeks after germination.

A marvellous plant: XL size, fruity, fast and powerful... What else can we ask for?

Sweet Zenzation XL Auto® (SWS100)

We all know that in America almost everything is bigger and our Sweet Zenzation XL Auto® is now also bigger.

This 7th Generation autoflowering strain, mostly indica, can reach up to 120 cm in height. In only 8 weeks the plants produce incredible amounts of terpenes, with a very intense sweet and fruity aroma.

Amazing production of tight and dense buds covered in an irresistible resin with high levels of THC: it can reach 24%!

You can expect happy, calm and relaxing effects from this strain.

In short, it is an American Zkittlez strain! XL size, high THC and dense buds.

As you can see, it's more than certain that you will find the ideal seed for your collection. We hope that our new cannabis seeds for the 2022 season get you a little closer to the power, aromas and typical American flavors. But above all, we expect you to enjoy your seed collections as much as we enjoyed creating our genetics. Which of our new strains will you choose?

Thanks for being here. We wish you The Sweetest Experience.

SWEETSEEDS.COM OR VISIT OUR FACEBOOK
PAGE: **FACEBOOK.COM/PAGES/SWEET-SEEDS**



GORILLA SHERBET F1 FAST VERSION® (SWS98)



STRAWBERRY BANANA GELATO XL AUTO® (SWS99)



SWEET ZENZATION XL AUTO® (SWS100)



CBD May Be Able to Protect Against COVID-19

Written by Paul James

Cannabidiol (CBD) has garnered much attention since the 2018 Farm Bill legalized it over the last five years. Within the last few months, even more, mouths have begun talking about it due to its potential to help fight against COVID-19.

Several clinical trials have shown promise in CBD, helping relieve COVID symptoms and help fight against infected cells.

Throughout this article, we will take a deeper look at CBD and COVID-19. From there, we will discuss how much potential CBD has for fighting this virus and whether or not this should determine whether or not you purchase products.

Test Tube Trials Found CBD Inhibits COVID-19 From Replicating

Marsha Rosner led a team at the University of Chicago to figure out whether CBD can help fight against

SARS-CoV-2 in infected cells. Because these tests have not been run in humans, she makes it clear, "Our findings do not say this will work in patients. Our findings make a strong case for a clinical trial."¹

Rosner and her team looked into Epidiolex - the only CBD product currently approved by the Food and Drug Administration (FDA) for severe epilepsy. They took the dose found in Epidiolex and developed a highly purified CBD.

The team found that this dose did nothing to prevent coronavirus from infecting cells within the test tubes. However, once the virus had already entered cells, it soon acted by preventing copies from being made.

This was likely due to CBD's ability to affect the inflammatory protein interferon. A characteristic of cannabidiol as observed in infected mice.²

Furthermore, the researchers looked into a group of adults with severe epilepsy who had been taken Epidiolex. They found that this group of people had lower rates of COVID-19. Still, since this was a small number of individuals, the researchers admit that conclusions shouldn't be drawn from the results.

The researchers were also curious if tetrahydrocannabinol (THC) could help to prevent COVID symptoms. However, THC did nothing to prevent the virus from replicating itself, but it also inhibited CBD's ability from working.

"Marsha Rosner has led a team into figuring out whether or not CBD can help fight against SARS-CoV-2 in infected cells."

Other Cannabinoid May Help in the Pandemic

Still, researchers are continuing their efforts to see if other cannabinoids found in the cannabis plant

can help to curb the pandemic.

For example, a separate team ran some trials concerning high doses of cannabigerol (CBG) and cannabidiolic acid (CBDA). They found that it helped to prevent coronavirus from entering into cells.³

But these results remain inconclusive. As the researchers reported, even though higher doses of these cannabinoids weren't toxic to cells, it's not yet clear whether or not they'd be harmful to humans in general.

Furthermore, the human trials concerning CBD and other cannabinoids don't seem promising.

In one study performed by researchers in Brazil, 105 COVID-19 patients with mild to moderate symptoms were given either a dose of CBD or a placebo for 14 days. Those who received the CBD didn't seem to show much difference in symptoms than the placebo.⁴

More human studies are underway. However, there are some difficulties facing researchers. Most notably, the current Omicron-driven coronavirus presents mild to moderate symptoms within patients. With that in mind, it's difficult to measure how much CBD is helping.

Rosner admits that she is concerned people will see these reports and immediately assume they should go out and purchase CBD products. This isn't the case (as we'll get to in a moment).

"We would love to be able to say specifically that a certain dose of cannabinoids is helpful," she said. "Vaccine-induced antibodies and antibody drugs are much more effective at blocking infection."

Why You Shouldn't Rely on CBD for COVID-19

While the current Omicron-wave of COVID-19 isn't nearly as powerful as last summer's Delta-wave, some reports show it can spread much easier than other variants.⁵ And as we've discussed in this article, CBD and other cannabinoids don't seem to present the ability to inhibit the coronavirus from infecting cells.

With that said, taking a CBD product isn't going to slow the spread of this virus - as is the objective across the world.

According to the research, CBD may prevent COVID-19 from replicating once in the human body. However, since research has only looked into test tubes and animals, it's impossible to say whether or not it can help within the human body.

For this reason, buying a CBD product is not going to be your answer to beating COVID-19, even if you're infected. Instead, it might help diminish symptoms - but even then,

we must be very cautious before jumping to the conclusion that it will.

Currently, the currently approved vaccines are the best way prevention against COVID-19.

Even if these trials concerning CBD prove correct, it's unlikely CBD or other cannabinoids will replace the vaccine. Instead, it may prove helpful as a therapeutic addition to already-established medicines.

CBD: The Miracle Drug That's Not Really a Miracle

And going off our last point, this is primarily what CBD has been shown to do time and time again.

While it holds the potential to be used for several health conditions, it's never shown the ability to either prevent or treat entirely a particular condition. Instead, it's always been shown to be a therapeutic addition to already-established treatment paths.

Cancer is a prime example. Many have been led to believe that cannabis prevents cancer. And while some research shows that certain cannabinoids may inhibit cancer cells, cannabis is still not a cure.⁶

It can help in many ways. Most notably, CBD and other cannabinoids have been found to reduce side effects from chemotherapy, such as pain and nausea. But cannabis in and of itself still isn't as effective at treating cancer as chemotherapy.

And this will likely be the outcome of the COVID-19 research concerning CBD. While it can help, it is not an answer. We should use it to the best of our abilities, but we cannot rely on it to end this pandemic that has ravaged the world over the last 2 years.

"the human trials that have occurred concerning CBD... don't seem as promising."

"we cannot rely on it for ending this pandemic..."

Reference Sources

- 1 Reuters: Cannabis compound CBD stops coronavirus in test tube, but can it treat COVID? <https://www.reuters.com/business/healthcare-pharmaceuticals/cannabis-compound-cbd-stops-coronavirus-test-tube-can-it-treat-covid-2022-01-25/>
- 2 ScienceAdvances: Cannabidiol inhibits SARS-CoV-2 replication through induction of the host ER stress and innate immune responses: <https://www.science.org/doi/10.1126/sciadv.abi6110>
- 3 Journal of Natural Products: Cannabinoids Block Cellular Entry of SARS-CoV-2 and the Emerging Variants: <https://pubs.acs.org/doi/10.1021/acs.jnatprod.1c00946>
- 4 Cannabis and Cannabinoid Research: Cannabidiol for COVID-19 Patients with Mild to Moderate Symptoms (CANDIDATE Study): A Randomized, Double-Blind, Placebo-Controlled Clinical Trial: <https://www.liebertpub.com/doi/10.1089/can.2021.0093>
- 5 Centers for Disease Control and Prevention (CDC): COVID-19: Science Brief: Omicron (B.1.1.529) Variant: <https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/scientific-brief-omicron-variant.html>
- 6 National Cancer Institute: Cannabis and Cannabinoids (PDQ®) - Health Professional Version: <https://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq>



WOMEN of WEED WORLD

by Sharon Letts

Michelle & Lauren Hackett Riverview Farm, Salinas, California

Third generation food farmers with a focus on cannabis | growwithrvf.com |

Sisters Michelle and Lauren Hackett were born into food farming raised in the Salinas Valley, located in Central California, south of San Francisco.

Together, they now run Riverview Farms, a commercial cannabis company founded by their father, Mike Hackett. Michelle is acting President, having been with the company five years. Lauren is Retail Sales Manager, now with the farm for three years.

"My sister and I were born and raised here in Salinas," Michelle Hackett shared. "We are from the third generation of agricultural entrepreneurs."

The valley sits between two mountain ranges, the Gabilan and the Santa Lucia, with the Gabilan range made famous in John Steinbeck's *Of Mice and Men*. Steinbeck hailed from this fertile valley long known for its agriculture.

They are called the "Salad Bowl of the World," growing

more than 70 percent of the country's lettuce. Celery, broccoli, tomatoes, peppers, and cauliflower are crops that also do well in the coastal region's cool, humid environment, as the Pacific Ocean's marine influence flows into the valley, creating the perfect condition for cool weather crops.

Salinas was also known as one of the top-cut flower producers. But with the global flower market-dominating,

the valley was left with empty Dutch greenhouses, with roofs that roll back to let the sun in - perfect for growing cannabis.

Born into it

Michelle received a degree in business from Saint Mary's College in California and interned at Growers Express for its CEO, learning all she could know about agriculture, sales, and marketing.

"I always knew I'd be farming due to my roots here in the valley," she continued. "After I completed college, I came home to work in product sales for a local grower/shipper, Church Brothers. I joined the sales team and quickly moved up the ladder, collaborating closely with my boss and friend, Jeff Church."

Michelle worked for the Church Brothers for four years when her father was approached to lease out the family's greenhouses to a cannabis company in 2016.

"Dad turned down the offer to lease out the greenhouses and then requested an exemption to grow medical cannabis himself," she said. "Everything I learned in agricultural I've been able to use here in cannabis. There are many parallels to what we do today. We are not reinventing the wheel, we are growing high-quality commercial cannabis in the same way flower, poinsettias, and succulents were grown here - with the same crews and best practices that lettuce, broccoli, and artichoke farmers use today."

Compliance, inventory, distribution, fulfilling orders, everything any other farmer would do for food, Michelle and team do with cannabis.

"Working closely with clients to keep production moving, as well as working with our retail team and production to fulfill orders in a timely fashion is key," she added. "Communicating with my grower Sean on new genetics, upcoming harvest, trends in the market yields, working with our accounting team on keeping accounts clean - the list goes on and on!"

Flowers are Female

Lauren Hackett also studied business, graduating from California State University at Monterey Bay. She worked locally for a large agricultural recruiting firm until her sister, Michelle, asked her to join the team at Riverview as Retail Sales Manager.

"Michelle asked if I could run the retail team," she shared. "I've been overseeing our retail and packaging team, organizing logistics each week, checking the quality of products between both retail brands, Riverview Farms - a premium product and 4Republic, our budget line."

Vertically integrated, they control every aspect of the flower they sell from seed to shelf, with both brands hitting competitive price points.

"We control everything we do from seed to sale, including our in-house nursery," Lauren said. "We can sell clones and teens from the nursery. We also have our harvest, bucking/trimming crews, on-site pest

management, and in-house sales teams. We do not have to rely on a third-party distribution company to do the work for us."

With more than 75 percent female minority workforce, Riverview Farms is the largest female minority-owned cannabis farm in Monterey, let alone California.

Riverview provides work for all its employees 365 days a year - a departure for the transient agricultural workers in the area. They must relocate six months out of the year to Yuma, Arizona, to harvest food crops.

The future of cannabis in Salinas

Many of its greenhouses have been converted into cannabis farms. Salinas has come on board for the plant, but it's not perfect.

With ordinances drawn up regionally throughout all states legal for cannabis, California is no different in its disjointed rules and regulations in dealing with the plant.

One such ordinance seemingly based on a lack of knowledge is destroying leaf, stems, and roots. All must be trashed, when in most other regions, the material is considered a viable commodity, with medicine makers using the entire plant for a full cannabinoid and terpene profile - including the roots. At the very least, this type of

material should be put into compost for a rich nutrient-based fertilizer and soil conditioner.

"I hope that regulators can be gently educated on these points and open their eyes to the full potential of this viable business," Michelle explained. "We need fair treatment, less taxation, more retail outlets, a cap on cultivation licenses to correct this surplus of product in the marketplace. We need many changes, but that only happens when people

come together and make it happen. We can all sit back and complain about what's wrong, but what are we doing to fix those issues?"

To enact change on the local level, Michelle sits on the Monterey County Cannabis Industry Association (MCCIA) board, sitting on monthly stakeholder meetings with the county.

"I participate and ask questions, bringing topics up that I would like to see changed or improved," she said. "I also sit on the county's taxation subcommittee and attend Board of Supervisors meetings to stay educated on the discussion that affects our industry. And I speak up when need be. Bottom line, I try to stay active in the community as much as possible."

One hope the sisters have is to find more networking opportunities throughout the state, attending Hall of Flowers and the MJ Biz Con to build stronger business relationships and to enact real change where needed.

Both sisters agree they enjoy partaking in the plant they grow together.

"I have to say, I enjoy flowers after the workday is done," Michelle said. "And I must say, I enjoy it the most with my sister, Lauren, having laughs, talking about how far this business has come."



DARLING BUDS

By Psy-23

PHOTO BY KINDEL MEDIA FROM PEXELS

Over the course of the past few years we have seen countless ways that the global Covid-19 pandemic has changed the way that we live our daily lives. Whether it was adjusting to the isolation of lockdowns, adjusting to social distancing or trying to figure out how to work remotely and effectively, all of us have likely made decisions to adapt to what we were told was the 'new normal' regardless of whether we believed that our governments would ever relinquish their grip on our sense of freedom. From personal experience, I became increasingly aware of my sedentary lifestyle and poor choices when it comes to food, alcohol and exercise but I also adjusted my intake of cannabis and tried to regulate my expenditure.

A recent European study found some interesting parallels when it came to how the pandemic has impacted on people's use of recreational drugs and indicated that many people are now choosing cannabis over a number of other options. Conducted via an anonymous online survey that questioned candidates on their habits, preferences, regularity of use and reasons for choosing a particular form of controlled substance or prescription medication. One of the key results from the subsequent data analysis indicated that use of cannabis has increased by some margin while use of 'harder' drugs has declined quite significantly. Across much of Europe, the use of ecstasy, cocaine, amphetamines are quite common in the recreational market (albeit illegally in the vast majority of places) and throughout the past few decades they have accounted for a good proportion of all illicit substance usage. Ecstasy in particular has remained very popular in Europe, so what could be the reason for this sudden shift towards cannabis as the main preference?

While it is impossible to pinpoint the exact reason for this change (people are individuals after all) there are a number of contributing factors that could shed some light on these findings.

Firstly, ecstasy is commonly known as a 'party drug' for a number of reasons. It is a mood-enhancer and helps people to connect without too much concern for the opinions of others; it makes many people feel euphoric and excitable which leads to people spending hours talking with stranger or dancing the night away. With this in mind, it could be suggested that the closure of nightclubs and bars essentially took away the key locations for people to fully enjoy the effects of drugs like ecstasy. Getting high on your own can be a very different experience and some people would likely find themselves feeling unsettled and agitated if they started to come up and had nothing to occupy them.

Secondly, there have been numerous reports over the past few years about the increasing strength of ecstasy with a number of high-profile cases involving people who have been hospitalized after taking what would usually be considered a very small dose (e.g. half a pill). With the lack of regulation and the drive for high profit margins on the black market, the various chemicals and additives that ecstasy can be cut with leaves users in a dangerous and difficult situation any time they buy their pills. Even if they

have a reputable dealer who they always go to there is no guarantee that somewhere further up the food chain has tried to make a quick buck by cutting in toxic or hazardous substances in order to either bulk out their supply or deliver a more intense high. You have to remember that many people are unscrupulous and value money over people and it is highly likely that people see cannabis as a 'safe' option when compared to some of the other substances that are available illicitly. Of course, there are testing kits and ways that people can check their pills before consumption but this isn't something which is widely done by individuals. There had been a shift towards testing spots at nightclubs and festivals prior to the pandemic but this is hardly a key priority at this point.

Furthermore, the cost of pills has sky-rocketed in some areas of the world with dealers claiming that higher strength pills are worth the extra cost. The cost of a weekend out on the town can become crippling if there are unexpected spikes in prices and as its generally a seller's market there is little incentive for prices to drop when supplies are lower and customers become increasingly desperate. In some ways, this is exactly one of the reasons that usage seems to be in decline: where people used to look forward to the weekend as a chance to let off some steam, being stuck indoors for extended periods and coming out feeling increasingly wary of those around us is hardly likely to encourage people back to the party scene in the same way that they used to approach it.

Perhaps this shift towards cannabis as a preference is really just a combination of all the above factors along with a number of developments within the cannabis market itself. People may have access to imports from countries/states where legalization has taken place and the internet opens up so many avenues for consumers to explore that the concept of just buying off a random dealer on the street feels increasingly outdated. I have tried out some social

media channels to reach beyond my geographical location with mixed success and even now I find that I'm more likely to buy a larger amount less regularly than to have to worry about sorting out weed on a day-by-day basis (it used to all be part of the daily grind but now I don't

"it is highly likely that people see cannabis as a 'safe' option..."

have time for all that). It also shouldn't be underestimated in terms of how people may have increased their intake of cannabis or even started using it for the first time simply as a form of respite from the madness we've all had to live through. To be honest, I don't think I would have coped with lockdown anywhere near as well as I did if it wasn't for the fact that I could always look forward to a joint at the end of the day (sometimes earlier – depending on work, kids etc.) and I would imagine that many others felt the same way. In addition, the changing attitudes around the world mean that cannabis is sometimes seen as a more palatable choice which is increasingly less likely to get you into any sort of real trouble. It all adds up when you think about it, so maybe it's just a natural evolution in response to everything that's gone on over the past couple of years.

I used to love going to parties and staying out all night with a few pills to keep me going...now I can't think of anything I'd probably enjoy more than kicking back in the comfort of my own home with a quarter of something sticky, a bottle of red and some choice videogames. Whatever you choose to do with your spare time, stay safe and be happy.



WEED & WARFARE in Ukraine

Written by Simpa

The ongoing Russo-Ukrainian war has recently been escalated by the invasion of eastern Ukraine by Russian President Vladimir Putin, kick-starting the most significant war in Europe since WWII. So I thought as an act of solidarity, I would take this opportunity to explore the Ukrainian cannabis scene and look at how this invasion could affect the development of a 'legal' cannabis industry in Europe's second-largest country.

Since its independence from the former Soviet Union (USSR) on August 24th, 1991, Ukraine has criminalized the sale, cultivation, and transportation of cannabis within its borders. Although it remains essentially the same today, Ukraine was once one of the world's largest producers of low-THC cannabis for industrial and commercial applications within the now-defunct union.

Before the 1950s and the invention and eventual ubiquity of synthetics like Nylon and other cheaply produced and exported textiles, Ukraine produced over 150,000 hectares of low-THC cannabis annually. Unfortunately, the country's industry began greatly receding over the second half of the twentieth century as its fate was inevitably tied to that of the doomed union.

The country did experience a small renaissance in the early 2010s as the number of domestic cannabis businesses briefly increased tenfold. Due to the specter of all-out war with its neighbor, the government began diverting its attention and resources away from non-essential projects such as regulating the low-THC industry through strict quotas. This lack of direct government investment and strategic oversight has since seen its industry markedly decline.

This is a shame; in 2018, the cultivation of low-THC cannabis technically became individually more profitable than sunflower production¹ in Ukraine. Who are still the world's largest producer and exporter of sunflowers, exporting \$5.3 billion worth in 2020 alone². A comparable low-THC industry would make the former eastern block nation a global player in large-scale cannabis cultivation and exportation.

The most recent resurgence in Ukrainian cannabis awareness, activism, and advocacy began with the

'Freedom March' on October 28th, 2017. Hundreds of demonstrators gathered in the nation's capital Kyiv to demand the decriminalization of cannabis possession and the 'legalization' of cannabis for therapeutic use.

A 2020 election poll question included by the now-president Volodymyr Zelenskyy on 'legalizing' cannabis for therapeutic use resulted in 65% for and 30% against. This triggered government Ministers to declare that there was no need to 'legalize' 'prescription cannabis' in Ukraine as they now intended to move cannabis from the country's banned substances list to the controlled substances list to facilitate access to prescription cannabis for its citizens.

In early 2021 cabinet Ministers passed a resolution doing just that. However, it was supposed to grant access. Still, in reality, it only allowed for the limited prescribing of a few specific and rather expensive cannabis-based pharmaceutical drugs such as Nabilone (Cesamet) and Nabiximols (Sativex). Interestingly, GW Pharmaceuticals Epilepsy drug 'Epidiolex' doesn't seem to be included on that list.

Although its research had estimated that 2 million Ukrainians could potentially benefit from consuming prescription cannabis, Ministers seemingly sincerely believed that this minor rule change would be sufficient. However, as the prescribing of raw cannabis and whole plant cannabis-derived products remains unlawful, the vast majority continue to go without lawful access and the protection it affords its possessor.

2022 began with two bills to 'legalize' the limited prescribing of cannabis for therapeutic use under consideration by the government. One was produced by recommendations from the Verkhovna Rada (Ukrainian Parliament) Committee on Public Health, Medical Assistance, and Medical Insurance members. The other, bill 5596, was submitted in June 2021 by a large cross-party group of Ministers but has yet to progress further.

The former was sent back for revision by the progenitors of the latter to ensure "strengthening [of] the control of the National Police of Ukraine over the circulation of cannabis." While MPs are touting the other Minister-approved bill as more clearly defining "the essence of medical cannabis" and "the procedure for importation³".

The 'Servant of the people' party MP Mykhailo Radutskyi emphasized when announcing the Minister-backed bill to the Rada (Ukrainian Parliament) that "Neither the bill sent for revision, nor the new government's bill has a single word about drug legalization, It's just medical cannabis⁴."

Personal possession of a small amount of cannabis is considered an administrative offense. If you're caught under 5g, you will usually only receive a small fine. However, possession over that limit is considered a criminal offense and can result in a hefty fine and up to three years in prison.

CBD is attractive as it isn't explicitly prohibited or 'legalized' in any act or legislation but could technically fall under several actions depending on their interpretation. This means it cannot currently be legally produced domestically and falls into somewhat of a grey area when importing it.

Domestic sales of CBD are generally overlooked by the

authorities as long as the total THC content of the product remains under that imposed by the country's licensing authority. The same confused situation most other European nations currently find themselves in. In Ukraine, that arbitrary percentage is painfully low at 0.08% THC when cultivating licensed cultivars of low-THC cannabis for fiber and seeds.

Something that potentially could benefit the war effort right now in Ukraine is a food source. It's cheap, highly nutritious, packed with fiber, and a complete protein with essential and non-essential amino acids. This makes it ideal for cultivating when food is scarce, and supply lines may be cut off for long periods.

The growing of cannabis is illegal in Ukraine, although cannabis seeds are lawful and can be sold in shops and online as souvenirs during peacetime. The cultivation of up to 10 plants would typically only result in an administrative fine and the destruction of the plants and equipment for first offenders. However, growing over ten plants becomes a criminal offense with increasing fines and escalating prison sentences from three to twelve years depending on quantity and other aggravating factors.

Regardless of what type of access model Ukraine employs when this conflict ends, there will potentially be millions of citizens and soldiers now afflicted with PTSD, trauma, and other mental and physical health conditions caused by warfare. These are all conditions that could be treated, in my opinion, far more effectively with the right cultivars, preparations, and doses of cannabis than just regimenting what will likely become a lifetime maintenance dose of synthetic opioids and SSRIs.

However, the adoption of a 'prescription cannabis' only model would negate other potential health and socio-economic benefits of ending cannabis prohibition. For example, by ubiquitously allowing its adult citizens to grow, trade, and consume cannabis Ukraine could save thousands of lives by reducing its alcohol consumption. A level that is currently so high it was recently ranked in the highest category for 'years of life lost' due to alcohol consumption by the WHO5. Something that will only likely increase as many will doubtlessly imbibe excessively to deal with the ongoing war. Before Putin's invasion, members of the Verkhovna Rada were at risk of

just blindly following the 'Medical-Cannabis Industrial Complex' playbook, first astroturfing an existing grassroots movement into pushing your narrative and agenda. Then isolate and demonize 'rebel' elements within the existing cannabis community and anyone who questions the prescription-only paradigm.

Next, create a slick legacy and social media campaigns that use epileptic patients and sick children to guilt and win over a doubting public—using key political and celebrity figures to pull in local venture capitalist investors. Then finally lobbying the government to introduce convoluted and restrictive pay-to-play profit-driven policies and models that prioritize its shareholder's profits over the lives of its patients.

"...by ubiquitously allowing its adult citizens to grow, trade, and consume cannabis Ukraine could save thousands of lives by reducing its alcohol consumption. A level that is currently so high it was recently ranked in the highest category for 'years of life lost' due to alcohol consumption by the WHO5"

I hope that post-war when it is appropriate for the country's MPs to discuss such matters again, they will not be taken in by the same divisive and delusional narratives that have captivated MPs in many countries before them.

Although I'd like to think that the Ukrainian people themselves wouldn't allow them to simply be concerned with creating legislative changes that only benefit the longevity of their professional careers, personal relationships, and private investments.

The Russian invasion in February 2022, while somewhat expected, has never the less been a bloody and devastating conflict for the poor and lower-class youth of these nation-states sent to die in an older man's war. No matter the outcome of this conflict or the time it takes to end and the wounds to heal, nothing will ever bring back all those that have needlessly died.



Sources

1. news.agro-center.com.ua/en/plant-growing-en/the-number-of-hemp-farms-in-ukraine-has-increased-tenfold.html
2. railway-technology.com/special-focus/ukraine-russia-conflict-impact-trade/
3. life.pravda.com.ua/health/2020/12/2/243250/
4. ukrinform.net/rubric-society/3381025-ukraines-parliament-may-legalize-medical-cannabis-this-year.html
5. tandfonline.com/doi/full/10.1080/10826084.2020.1735436

SHOPPING WITH WEEDWORLD.CO.UK

10% OFF
when you pay
with cash or by
bank transfer

**FREE
SEEDS**

when you spend
£40+ in Bitcoin at
weedworld.co.uk

NEW WAYS TO PAY!

- **USA:** Zelle, Bill Pay, echecks
- **UK:** Faster Payments
- **Australia:** PayID, EFT, BPay
- **Netherlands:** iDeal
- **Thailand:** 7Eleven Counter Service ACH transfer
- **Worldwide:** Credit card

YOU CAN PAY BY...

BANK TRANSFER or with CASH

POST ORDERS TO: WEED WORLD, TREGARON, SY25 6PX, UK

How to pay via bank transfer

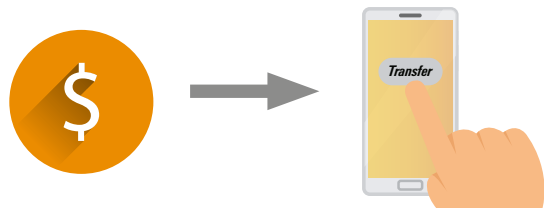
Select your goods from Weed World's online store, then...

ONLINE

Log in to your online bank account.

Go to "transfers" and input the details below, along with your total order amount.

Account name*: Waccy Ltd
Account number: 35946424
Sort code: 09-01-28

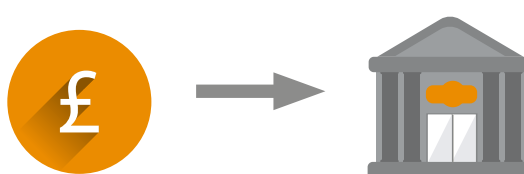


AT THE BANK

Visit the local branch of your bank.

Tell them you would like to make a bank transfer to the following account:

Account name*: Waccy Ltd
Account number: 35946424
Sort code: 09-01-28



For more information on payment options, visit weedworld.co.uk/payment-options

the MUSIC REVIEWS



A Nation of the People

Goldencut

Standing proudly abreast a myriad of influences, Goldencut's latest offering is a raw, catchy anthem that brings their trademark eclectic sound into the realms of Rage Against the Machine and Public Enemy. The Strasbourg quartet, fronted by Eli Finberg aka Mr. E, have delivered a highly-charged and scathing track that sits right on the money and is absolutely spot-on for our current times. Questioning our obsession with social media, police brutality, racial division and America's tainted history with slavery, capitalism and the decline of democracy, *A Nation of the People* is a brilliantly brutal dissection of modern America and needs to be heard (preferably at a high volume). From the opening spoken word to the infectious hook that could launch a killer mosh pit this is track that hit every note and gets you pulling faces of appreciation as you nod your head to it in total agreement. Essential listening.



Donda 2

Kanye West

People often say that life imitates art and there are some artists out there who appear genuinely live the persona that they have created. When it comes to Kanye West (or Ye, as I believe he is now to be referred to as), an artist born out of the flames of near-tragedy, it's equal parts incredible and horrifying to have witnessed his growth and evolution over the near two decades since he burst onto the scene with *College Dropout*. The young Kanye seems a far call from the current Ye and while this album/concept release still brings moments that capture the attention for the all the right reasons, it's also littered with pieces that just don't seem to fit. To many, Ye is a true inspiration and a prime example of how people can be true to themselves but to others he increasingly seems like someone who has become the victim of their own success.



War

ArrDee x Aitch

The new generation of UK grime artists show no signs of slowing down and the evolution of their sound continues to impress. You'd be hard-pressed to have not heard of Aitch in the past few years, rising as astronomically as he has, but ArrDee is rapidly carving out his own lane and coming into his own with each release. This track drops a scattergun rhythm with a Mariachi-sounding trumpet sample that sits beautifully under the hook as they go toe-to-toe in a classic battle style. While this isn't a diss track, their fluid styles are smooth and aggressive at the same time, throwing multi-syllables and punch lines all over the place. The pace is manic and they work majestically together to make an absolute banger with a good bit of soul thrown in for good measure. Well worth a listen if you want to see how the UK do their thing.



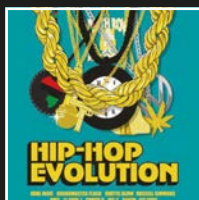
the TV / MOVIE REVIEWS



The Woman in the House Across the Street...

Rated 15

I do love a good thriller but I have to admit that when I first saw the trailer for this I thought that it would be little more than an over-the-top parody along the lines of how *Scream* was spoofed in *Scary Movie*. Following the exploits of a bored, borderline-alcoholic, recently divorced single woman, it explores a number of different tropes to deliver a witty and sometimes sublimely ridiculous tale filled with riddles and intrigue. Although there are plenty of dumb jokes, visual gags and sometimes ridiculous aspects to this series the actual plot was surprisingly engaging. In many ways the humor is far subtler than I thought it would be and the gags tend take a bit of a side line as it progresses through a dark and brooding narrative. That being said, it manages to strike a fine balance between genres and the performances from the cast tie it all together nicely. Bingo.



Hip Hop Evolution

Rated 15

As a big fan of hip-hop culture, it was hugely interesting to watch how each episode in all four seasons of this series dissects the key moments in rap and hip-hop history. Even though I thought I had a pretty good oversight of how things had played out (from personal experience, decades of music and countless other documentaries) I learned a lot about some of the biggest names out there and gained an even deeper love for some of my favourite emcees and DJs. From the biggest names on the block down to the kings of the underground, *Hip Hop Evolution* looks back on the historic beefs, the different soundscapes of different areas of the US, issues surrounding censorship and free speech and the characterisation of on-stage personas that have won fans around the world. Deep, dope and lovingly put together, this delivers one of the most comprehensive overviews ever.



Dave Chappelle: The Closer

Rated TV-Mature

In the age of cancel culture it seems that comedians are often seen as easy targets for the wrath of keyboard warriors. Never one to shy away from controversy, Dave Chappelle draws a line under his work with Netflix and toes a firm line in the sand for his critics with one of his most thoughtful, poignant and downright hilarious shows ever. Nothing is safe from his keen eye and you have to commend him for taking all the madness in his stride as he explores countless experiences from the past few decades to really unpick the truth behind the headlines. Too many people try to argue about things they don't really understand and this becomes one of the key ideals behind this swan song performance. Watch the whole show from start to finish and you'd be hard pushed not to respect this man as a true master of his craft.



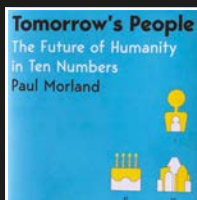
the BOOK REVIEWS



If You Liked School, You'll Love Work

Irvine Welsh

Irvine Welsh is an author that defined a generation and the cinematic interpretations of his wild rides through unashamedly dark places sit comfortably in the ranks of some of the most impressive film sequences of all time. That being said, trying to follow in your own footsteps can often be a challenge in itself and this latest offering brings plenty of what you might expect from Welsh but its shine is tarnished slightly by a feeling that too much of it has done before, albeit in a slightly different form. Comprising of separate narratives involving distinct characters with typically Welsh tinges (the author, not the nationality) each story is littered with a combination of philosophical observations, crude jokes and gross-out moments. It was a good book on the whole and I'd recommend that you give it a try, as there's plenty to enjoy overall, but it's just not quite as effectively executed as some of his other work.



Tomorrow's People

Paul Morland

The idea of over-population and the absolute capacity of the Earth before humanity goes into irreversible decline has always been a topic of interest for philosophers, scientists and economists throughout history but very few people seem to really know what they are talking about. Paul Morland's book explores the subtle balance of births and deaths around the world but also considers how migratory patterns have the potential to impact on how severe the issue of overpopulation really is. While the world seems to be filling rapidly, Morland hypothesises that total population is likely to reach 11 billion and explores how places like Japan have aging populations due to their societal pressures and social preferences leading to an interesting and at times illuminating read. In many ways, this book is a topical chronicle of our modern world which may prove to be pivotal in terms of really appreciating mankind's current trajectory and how it might all play out.



Cannabis Review Journal (For Cannabis Lovers)

M&H Editions

Although it's not strictly a book that I'd normally review, I stumbled across this by accident and thought it was cool enough to share. Essentially this does exactly what normal journal does but each page has a template printed on to make your life easier. You can record the strain name and its THC/CBD levels, make notes on the grower and your intended use in terms of the symptoms you want to relieve and how you choose to consume. I like the little details it includes, such as a tasting chart to plot the various flavor profile points and a 5-star rating system for all the relevant stoned categories, and while it seems like a pretty sweet gift for a fellow enthusiast I have to admit that I've ordered myself one just because I can. You can find it on Amazon or head to the publishers website directly if you want to check it out.



the GAME REVIEWS



Metroid Dread

Rated Teen • Switch

Stepping into the shiny boots of one of the most badass women ever to grace the gaming world, Metroid Dread thrusts Samus into an intense adventure that mixes tight shooting mechanics, a great world filled with opportunities to explore and a narrative that sucks you in as it develops. One of the first things that struck me about this little gem is that the pseudo-3D graphics work incredibly well and it's an absolute blast to play this on the big screen or on-the-go with the Switch console in its portable form. Like its numerous predecessors, Metroid Dread is a game that challenges you to expand your arsenal of weapons and skills so that you can reach areas which previously were unreachable and while this means a bit of back-and-forth around the map, the traversal is so satisfying that you barely notice the trek. Intense, thrilling and difficult to put down.



Lake

Rated 16 • XO/Series X/PC

While some games focus on abject realism and insanely detailed graphics, Lake instead leads the player down a reasonably linear path filled with subtle choices that affect how the narrative plays out. Starting out as holiday cover for your aging father in his role as a postal worker, this charming little game sees you spending two weeks in your hometown as you reconnect with figures from your past and carve out new friendships and rivalries. Each day sees you tasked with delivering parcels and letters around the time but you'll often find that chance encounters lead to more decisions and sometimes consequences you don't see coming. For the most part, this is a lovely little slice of nostalgia that captures the feeling of the mid-80s pretty well and if you fancy a change of pace then it's certainly worth a look. Good fun but pretty short overall.



Farpoint

Rated 17+ • PSVR

The revival of Virtual Reality over the past few years has led to some truly astonishing experiences, yet many games feel hampered by the lack of player-controlled movement and a number of games lose their appeal quickly because the initial novelty soon wears off. When I finally got around to playing Farpoint (it's been out a while, I know) I was completely blown away by the Aim Controller and the impact it has on the first-person shooting experience. Essentially, the controller gives the player the feel of holding their in-game weapon and mixes classic arcade shooting with a more typical FPS game by giving players complete control over their traversal through the game world with the analogue sticks attached to its frame. In all honesty, it delivers one of the most enjoyable and intense VR experiences out there and I can't help but wonder why more games haven't taken advantage of this stellar piece of kit.



About @_topshelfgrower_

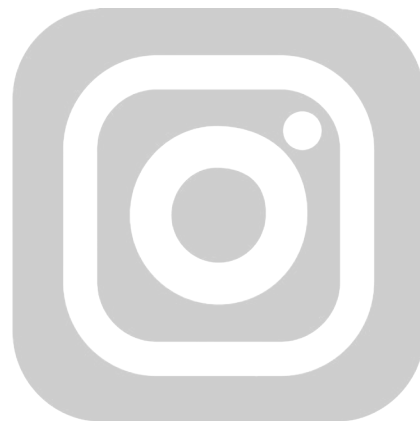
Hi, I'm Luca the Top Shelf Grower!

I got into cannabis when I was seventeen and I was using it as a getaway time. After moving to Australia, I met some people who showed me the plant in a different way. Working in a farm in Australia made me realize how much I love growing and gardening in general!

After my first cannabis grow, I fell in love with the process really quick. I love seeing it grow and take pictures of these incredible flowers who surprise us all the time. I wanted to expand my knowledge, so I took a cannabis course at Oaksterdam University in California.

I quickly understood that cannabis plants have a brain so give them love and you will be given the same back tremendously. With the help of the school and the fellow growers I met on Instagram, I'm now happy to grow the best flower within my capabilities giving all the love I can to the plants. When you see the final result and a big smile appears on your face, that's the only reward I'm looking for.

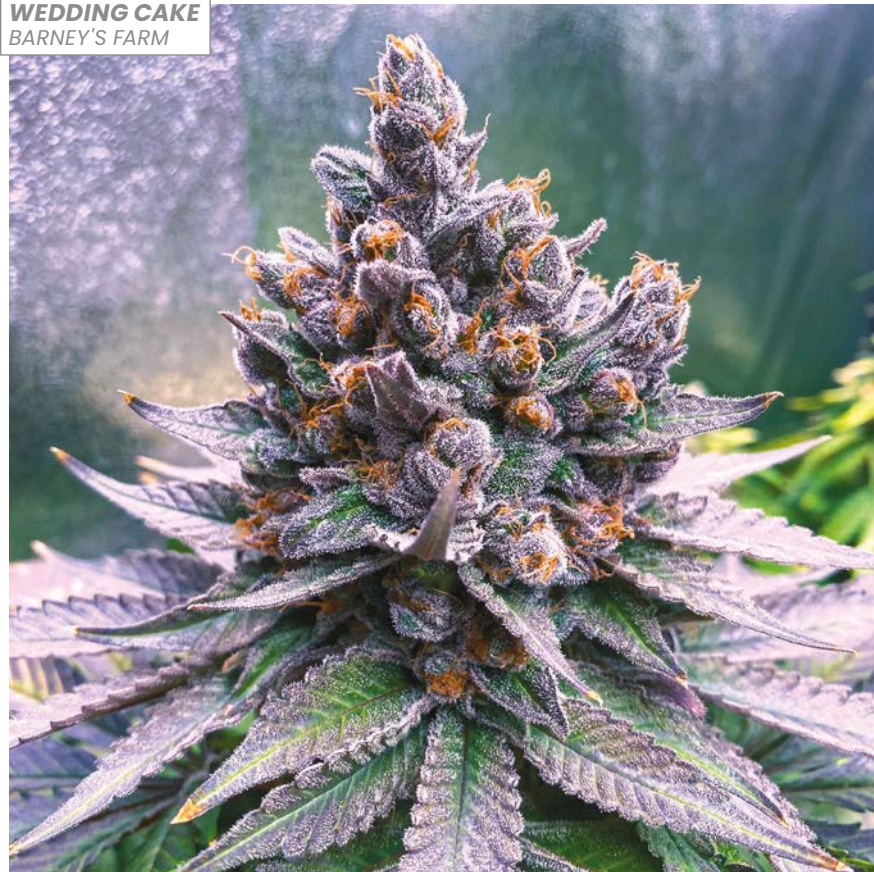
'Don't gamble with nature'



TOP SHELF GARDEN



WEDDING CAKE
BARNEY'S FARM



HOOD CANDYZ
SOLFIRE GARDENS



● ● ● INSTAGRAMMER OF THE MONTH: @_topshelfgrower_ ● ● ●

ELEVEN ROSES
Delicious Seeds





KING'S JUICE
GREEN HOUSE SEEDS



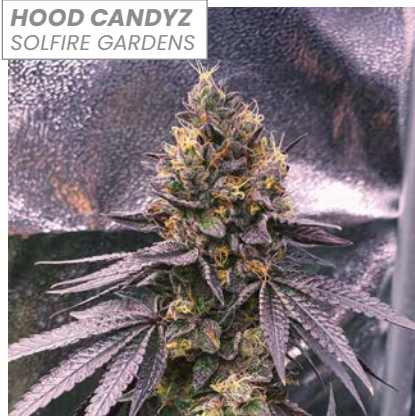
SUGAR BLACK ROSE
DELICIOUS SEEDS



KING'S JUICE
GREEN HOUSE SEEDS



HOOD CANDYZ
SOLFIRE GARDENS

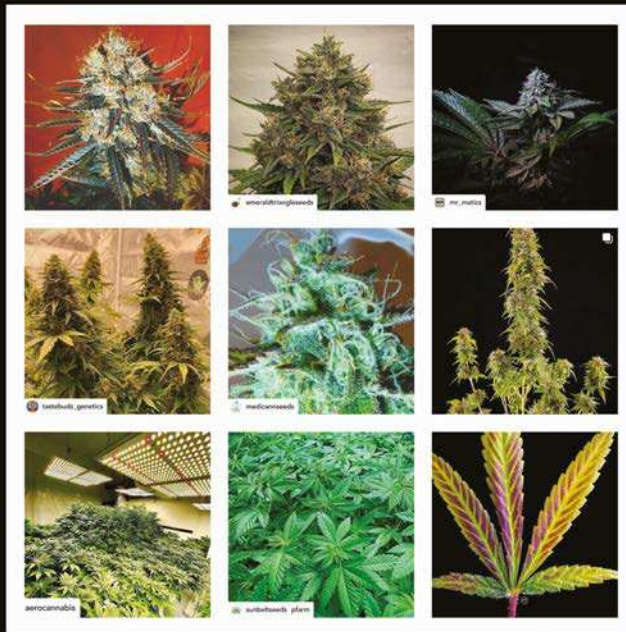


TRIPLE SCOOP
ELEVEN8



JOIN US ON INSTAGRAM

share, discover and connect...



share, discover and connect...

WEEDWORLD MAG

• • • INSTAGRAMMER OF THE MONTH: @_topshelfgrower_ • • •

HELPLINES & CONTACTS

RELEASE UK – OFFER DRUGS COUNSELING, DRUG EXPERT WITNESS, HELP & ADVICE AND LEGAL OUTREACH

For all information on their services call 020 7324 2989 or email ask@release.org.uk

Our drug expert witness service is delivered by our highly knowledgeable and accredited (Expert Witness Institute) drugs team that have provided authoritative independent reports and testimony for civil, criminal and military cases in England, Ireland, Scotland & Wales for over 10 years. The team are exceptionally experienced in dealing with most drugs whether prescribed or controlled/illicit (as defined by the Misuse of Drugs Act 1971) and are regularly instructed to comment upon: Valuation - street prices and wholesale; Drug prevalence; Common methods of drug use and administration; Cannabis cultivation and yield (including hydroponics); Possession with intent to supply; Bulk purchase for personal use (scale of economy); Importation and distribution; Dialogue interpretation and sequestration cases; Proceeds of Crime Act, to name but few areas. Contact: drugsexpert@release.org.uk

The counseling service is lead by Gary Sutton who is a member of the British Association for Counseling and Psychotherapy (BACP) and has an MSc in Therapeutic Counseling. Gary has many years of experience of working with people with drug, alcohol and emotional problems, and has delivered counseling in a variety of settings including drug treatment centers and prisons.

If you require further information, or would like details on commissioning the service then please contact Keith Edwards on keith@release.org.uk, or alternatively telephone 020 7324 2979.

Our legal surgery program currently operates in ten drug treatment centers across eight London boroughs, seeing over 1800 clients a year. People who use drugs problematically and engaging with the treatment centre can access a legal adviser for advice and assistance on a variety of issues, including: Housing; Homelessness; Welfare benefits (including representation at tribunals) Debt; Complaints against the police; Criminal injuries compensation claims

TALK TO FRANK If you want to talk, you can call FRANK, 24 hours a day, 365 days a year. (Free confidential drugs advice, they will signpost you to whatever service you may need). 0300 123 6600, text 82111, email: frank@talktofrank.com.

NORML/UK is a non-partisan, non-profit organization working for more research into the benefits of the uses of the hemp plant for all purposes. We aim to provide a support network to those seeking the normalization of cannabis consumption, and to influence a positive transformation of laws enabling responsible medical, spiritual, recreational and industrial uses in the UK.

Our five main objectives are outlined in our Cannabis Charter: Freedom, Evidence, Respect, Regulation and Medicinal cannabis. On our web site you will find information relating to medicinal and recreational cannabis.

We are seeking the reform of cannabis laws throughout the world. Hashish has been sold in coffeeshops in The Netherlands for forty years. Uruguay recently become the first country to officially legalize cannabis, and two States in the USA have also legalized, with more expected to follow suit.

If you would like to be part of the UK's leading campaign to reform the laws, then you can join online and become a member of NORML UK. www.norml-uk.org

General Inquiries: norml@norml.org

The NORML Foundation: foundation@norml.org

Media Requests: media@norml.org

Web: <http://norml.org/>

Legal Questions: legal@norml.org

Women's Outreach: sabrina@norml.org

NORML USA NORML and the NORML Foundation, 1100 H Street, NW, Suite 830, Washington, DC 20005
Phone: (202) 483-5500 • Fax: (202) 483-0057

SUPPORT & SELF-HELP GROUPS

The following websites and organisations offer advice on giving up or reducing cannabis use.

UNITED KINGDOM A web-site providing a free downloadable pdf document entitled A Guide to Cutting Down and Stopping Cannabis Use. www.knowcannabis.org.uk/images/Klargeguide.pdf

UNITED STATES AMERICA A web-site offering downloadable guides to quitting cannabis use. www.cannabisaddicts.com/ • http://stopsmokingcannabis.org/Home_Page.html

AUSTRALIA A web-site providing a free downloadable pdf document entitled Making Changes: A Self-Help Package for People Thinking about Changing their Lifestyles. www.gsaha.nsw.gov.au/UserFiles • www.edas.org.au/docs/cannabis.pdf

WORD OF WARNING

UK Laws. Please Observe... As responsible journalists, we at Weed World now feel we should extend our information on the re-classification of cannabis – and include the most up-to-date information from the Home Office.

GENERAL LEGISLATIVE POSITION AND EXISTING LICENSING ARRANGEMENTS:
Cannabis is a Class B controlled drug under Part II, Schedule 2, of the Misuse of Drugs Act 1971 (MDA 1971). It is also listed in Schedule 1 to the Misuse of Drugs Regulations 2001

(MDR 2001) and designated under the Misuse of Drugs (Designation) (England, Wales and Scotland) Order 2015 (2015 Order). As such, it is unlawful to possess, supply, produce, import or export this drug except under a Home Office licence. It is also an offence to cultivate any plant of the genus Cannabis except under a Home Office licence.

"CANNABIS-BASED PRODUCTS FOR MEDICINAL USE IN HUMANS" ("CBPM") - a defined category of cannabis, cannabis resin, cannabinol and cannabinol derivatives - are listed in Schedule 2 to the MDR 2001 and removed from designation under the 2015 Order. Home Office licensing requirements relating to these products are outlined below. The explanatory memorandum to the legislative changes can be found at:

<http://www.legislation.gov.uk/ukxi/2018/1055/memorandum/contents>

CANNABIDIOL (CBD) AND ITS CONTROL STATUS: CBD as an isolated substance, in its pure form, would not be controlled under the MDA 1971 / MDR 2001.

If a CBD 'product' contained any controlled cannabinoids, unintentionally or otherwise (e.g., THC or CBD-V), then it is highly likely that the product would be controlled. It is our understanding that it is very difficult to isolate pure CBD, and in our experience many products in fact do not fully disclose their contents or provide a full spectrum analysis at an appropriate level of sensitivity to accurately and consistently determine their true content or control status. Against this background, the presumption has to be one of caution - that is, that a CBD containing product would be controlled under the MDA 1971 / MDR 2001 as a result of its other cannabinoid content.

In addition to any issues associated with controlled substance content, cannabis/ cannabis extract products may also need to satisfy other regulatory requirements if clinical/medical benefits are claimed. In this respect, companies may wish to contact the MHRA for their view on whether the cannabis/ cannabis extract products are additionally subject to their licensing regime and control.

THC-A AND ITS CONTROL STATUS: THC-A as an isolated substance, in its pure form, would not be controlled under the MDA 1971 / MDR 2001. However, it is understood that THC-A readily degrades both naturally, and with a catalyst or environmental change (e.g. ingestion) to THC which is a Schedule 1 controlled cannabinoid.

Against this background, the presumption is similarly one of caution, namely that THC-A will become a controlled substance by virtue of its degradation.

Information from the Home Office - Misuse of Drugs act 1971: Class B - include

Amphetamines, Cannabis, Methylphenidate; (Ritalin), Pholcodine; Possession - Up to five years in prison or an unlimited fine or both; Dealing/Supply - Up to 14 years in prison or an unlimited fine or both

CANNABIS IS DESIGNATED AS CONTROLLED SUBSTANCES UNDER THE MISUSE OF DRUGS ACT 1971, AND USING THE DRUG IS ILLEGAL IN UK. The Misuse of Drugs Act states that it is an offence to: possess a controlled substance unlawfully; possess a controlled substance with intent to supply it supply or offer to supply a controlled drug (even if it is given away for free); allow a house, flat or office to be used by people taking drugs.

To enforce this law the police have special powers to stop, detain and search people under the 'reasonable suspicion' that they are in possession of a controlled drug.

LEGAL ADVICE

BEING HARASSED? Then contact the Solicitors from Civil Liberties and Human Rights...

The rights guaranteed to suspects, defendants, offenders and prisoners in our justice system are fundamental human rights that protect us all from governmental abuse of power. And the solicitors from BSB Law are committed to upholding these rights. Their solicitors are experienced in challenging the decisions of Courts, Local Authorities and Public Bodies, and they are currently involved in cases challenging the legality of decisions to prosecute parents under the Education Act for failing to ensure their children attend school and the scope of Anti-Social Behaviour Orders. For more information about their work in this area – you need James Skelsey. Their consultant Richard Parry is an experienced Civil Liberties campaigner and legal representative for the London Defence Monitoring Group. Parry has represented many protestors arrested as a result of the May Day and other political demonstrations. He is an expert in defending cases related to the supply, possession and importation of drugs. Contact Richard, if you are faced with prosecution.

Profile: Richard Parry of the BSB Law Firm... Richard began his career in 1987 working on the PC Blakelock murder trial at the Central Criminal Court, qualifying in 1994 as a solicitor - gaining higher rights of audience in 2006. He also has experience in the Coroner's Court, Courts Martial and before the Parole Board. Richard has been a Duty Solicitor since 1996 and furthermore Richard has a particular interest and expertise in drug and protest cases. He was involved in the leading medical cannabis case *R v Taylor, Quayle & others* whose petition to the House of Lords being rejected is now pending before the European Court of Human Rights. Add to that his involvement in numerous importation and supplying cases and is increasingly involved in Confiscation hearings under the Proceeds of Crime Act and other legislation. He has been interviewed on TV and Radio on the drugs issue, and spoken at Trafalgar Square. Richard was involved in defending many of the May Day protestors from 1999 onwards, in particular the only riot case from 1999, *R v MacHale* (2000). He currently assists 2 of the 5 British victims of police brutality from the G8 Summit in Genoa in 2001; the 2 trials there are expected to conclude in 2007. If you wish to contact Richard please e-mail him at richardvp@bsblaw.co.uk

BSB Law Solicitors undertake all work regularly conducted in the criminal courts at all levels and their practice encompasses all aspects of dishonesty, violence, and sexual offences and drugs offences. Worth noting – they also offer expertise in: Internet Crime - Explosives and Firearms - Road Traffic Matters - Licensing - Obscene Publications - Local Authority - Prosecutions - Environmental Crime.

BSB Law Solicitors undertake all work regularly conducted in the criminal courts at all levels and their practice encompasses all aspects of dishonesty, violence, and sexual offences and drugs offences. Worth noting – they also offer expertise in: Internet Crime - Explosives and Firearms - Road Traffic Matters - Licensing - Obscene Publications - Local Authority - Prosecutions - Environmental Crime.

BUTCHER SAHOTA SKELSEY BLACK SOLICITORS

5-7 Euston Road, Kings Cross, London, NW1 2SA. DX 37905 Kings Cross.

Tel: 020 7837 3456 (24 hours) • Fax: 020 7837 9696

info@bsblaw.co.uk • www.bsblaw.co.uk

CANNABIS LAWYER CANADA

Paul Lewin

Tel. (416) 499-7945 • email: paullewin@bellnet.ca • www.LewinSagara.ca

The inclusion of the above organizations are only suggestions, and Weed World cannot be held responsible for content of external websites.

PLACING YOUR ORDER

BY POST: WEED WORLD, TREGARON, SY25 6PX, UK

BY EMAIL: ORDERS@WEEDWORLD.CO.UK

BY PHONE: UK 01974 821 518 US 01144 1974 821 518

WWW.WEEDWORLD.CO.UK

With so many products to choose from,
you'll be spoilt for choice at weedworld.co.uk

Weed World's dedicated processing team are
waiting to take your order now, and will ensure the
SECURE AND DISCREET arrival of your order.

Please ensure all cash is sent using a secure insured postal service
- insuring your money against loss. Weed World cannot be held
responsible for any loss of money due to uninsured packages. Please
check weedworld.co.uk for up-to-date price and stock information.
Please call (UK) 01974 821 518 / (US) 01144 1974 821 518 for a postage
quote if you do not live in the UK, EU or USA.



WW ORDER FORM

You can post us cash (remember to use a registered
delivery service if sending these forms of payment).

NAME:

ADDRESS:

ZIP/POST CODE:

TEL:

EMAIL:

ITEM	PRICE	QTY	TOTAL
Please attach a separate sheet of paper if you require more space.			SUBTOTAL
ADD P&P: UK £6.00 USA \$20.00 EU €15.00			TOTAL COST

50% OFF

at WEEDWORLD.CO.UK

Discount applied at checkout. Cannot be used in conjunction with any other offers,
promotions, coupons or discounts. Weed World reserve the right to modify the terms
of this offer at any time. Subject to availability, while stocks last.

OFFER ENDS 30 APR 2022

WW157



20% OFF

at WEEDWORLD.CO.UK

Discount applied at checkout. Cannot be used in conjunction with any other offers,
promotions, coupons or discounts. Weed World reserve the right to modify the terms
of this offer at any time. Subject to availability, while stocks last.

OFFER ENDS 30 APR 2022

WW157



20% OFF

at WEEDWORLD.CO.UK

Discount applied at checkout. Cannot be used in conjunction with any other offers,
promotions, coupons or discounts. Weed World reserve the right to modify the terms
of this offer at any time. Subject to availability, while stocks last.

OFFER ENDS 30 APR 2022

WW157



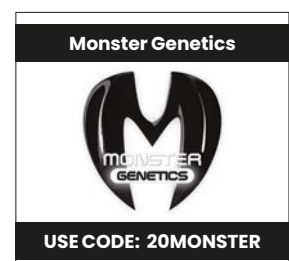
20% OFF

at WEEDWORLD.CO.UK

Discount applied at checkout. Cannot be used in conjunction with any other offers,
promotions, coupons or discounts. Weed World reserve the right to modify the terms
of this offer at any time. Subject to availability, while stocks last.

OFFER ENDS 30 APR 2022

WW157



FREE SHIPPING

ON ALL UK ORDERS

at WEEDWORLD.CO.UK

Discount applied at checkout. Cannot be used in conjunction with any other offers,
promotions, coupons or discounts. Weed World reserve the right to modify the terms
of this offer at any time. Subject to availability, while stocks last.

OFFER ENDS 30 APR 2022

WW157



COUPONS OFFERS DISCOUNTS REDUCTIONS SALES

BUSINESS DIRECTORY

Other (Retail/Entertainment)

Mendo Dope
mendodopemusic.com



Near Dark
neardark.de

Near Dark

The Simpa Life
thesimpalife.com



Weedlive
dlive.tv/weedlive



Weed World Magazine
weedworldmagazine.org

WEED WORLD

Whole Plant Extract (WPE)
wholeplantextract.co.uk



Why Not? Shop
whynotshop.ch

why not?

Other (Wholesale)

Weed World
weedworld.co.uk

WEED WORLD

**WANT TO SEE
YOUR BUSINESS
LISTED HERE?**

**GET IN TOUCH:
info@weedworld.co.uk**

UK 01974 821518 • Europe ++44 1974 821518
USA ++144 1974 821518

Please note: Weed World cannot be held responsible for content of external websites.

Souvenir Seeds (Retail)

Attitude Seedbank
theattitudeseedbank.com



Amsterdam Seeds Center
amsterdamseedcenter.com



Barney's Farm
barneysfarm.com



Big Head Seeds
bigheadseeds.com



CBD+ Buds
cbdplusbuds.com



Dutch Passion
dutch-passion.com



Emerald Triangle Seeds
emeraldtriangleseeds.co.uk



Genofarm
genofarm.com



Genofarms
genofarms.com



Kush Cannabis Seeds
kushcannabisseeds.com



Medicann Seeds
medicannseeds.com



Ministry of Cannabis
ministryofcannabis.com



Sunbelt Seeds
sunbeltseeds.co.uk



Sweet Seeds
sweetseeds.es



Cannabis & Coronavirus-2

Cannabinoids Block Cellular Entry of SARS-CoV-2 and the Emerging Variants

STUDY

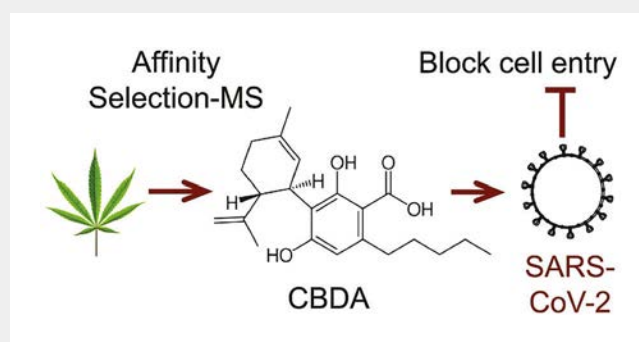
Richard B van Breemen, Ruth N Muchiri, Timothy A Bates, Jules B Weinstein, Hans C Leier, Scotland Farley, Fikadu G Tafesse

As a complement to vaccines, small-molecule therapeutic agents are needed to treat or prevent infections by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and its variants, which cause COVID-19. Affinity selection–mass spectrometry was used for the discovery of botanical ligands to the SARS-CoV-2 spike protein. Cannabinoid acids from hemp (*Cannabis sativa*) were found to be allosteric as well as orthosteric ligands with micromolar affinity for the spike protein. In follow-up virus neutralization assays, cannabigerolic acid and cannabidiolic acid prevented infection of human epithelial cells by a pseudovirus expressing the SARS-CoV-2 spike protein and prevented entry of live SARS-CoV-2 into cells. Importantly, cannabigerolic acid and cannabidiolic acid were equally effective against the SARS-CoV-2 alpha variant B.1.1.7 and the beta variant B.1.351. Orally bioavailable and with a long history of safe human use, these cannabinoids, isolated or in hemp extracts, have the potential to prevent as well as treat infection by SARS-CoV-2.

Caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), the COVID-19 pandemic includes at least 272 million cases worldwide, 5.3 million deaths, and over 600 000 new cases daily as of December 2021.¹ Vaccines have been developed, but due to their limited availability and the rate of virus mutation, SARS-CoV-2 infections are likely to continue for many years. As the pandemic continues, several SARS-CoV-2 variants have emerged that are circulating globally, including the variant B.1.1.7 (alpha, first detected in the United Kingdom), variant B.1.351 (beta, first detected in South Africa), and variant B.1.617.2 (delta, first detected in India).² These variants of concern are reported to have the capacity to escape humoral immunity elicited by natural infection or the current vaccinations. Moreover, the variants are associated with increases in infections and hospitalizations, suggesting a competitive fitness advantage over the original strain.³

The Results

Our infection inhibition assay results clearly indicate that CBDA and CBGA are both able to block cell entry by SARS-CoV-2. The concentrations needed to block infection by 50% of viruses is high but might be clinically achievable. For example, CBDA administered orally to human volunteers at 0.063 mg/kg showed greater bioavailability than CBD and produced maximum plasma concentrations of 0.21 μ M.³² In beagle dogs, oral administration of CBDA at 1 mg/kg was well tolerated, was 2-fold more bioavailable than CBD, and produced serum levels up to 1.42 μ M.⁴¹ Although no data



on the bioavailability of CBGA are yet available, the data for CBDA suggest that μ M plasma and serum concentrations for CBGA should also be possible.

Previous reports have indicated that one possible mechanism for inhibition of SARS-CoV-2 by decarboxylated cannabidiol (CBD) is activation of innate immune mechanisms.⁴² However, our live-virus data indicate that inhibition by CBDA and CBGA occurs at the point of cell entry. These mechanisms are not mutually exclusive, and it remains possible that multiple cannabinoids in complex mixtures from plant extracts could act independently to inhibit SARS-CoV-2, potentially leading to enhanced effectiveness when compared to individual compounds.

One of the primary concerns in the ongoing pandemic is the spread of viral variants, of which there are many, with some of the most concerning and widespread being B.1.1.7 and B.1.351. These variants are well known for evading antibodies against early lineage SARS-CoV-2, which is particularly concerning due to the fact that current vaccination strategies rely on the early lineage spike RBD as an antigen. Our data show minimal impact of the variant lineages on the effectiveness of CBDA and CBGA, a trend that will hopefully extends to other existing and future variants. Because we believe that the primary binding site for CBGA is allosteric, there may even be reduced evolutionary pressure for SARS-CoV-2 to mutate their binding sites compared to the orthosteric binding sites typically favored by neutralizing antibodies. With widespread use of cannabinoids, resistant variants could still arise, but the combination of vaccination and CBDA/CBGA treatment should create a more challenging environment with which SARS-CoV-2 must contend, reducing the likelihood of escape.

For the full study, please visit:
www.ncbi.nlm.nih.gov/pmc/articles/PMC8768006



SEED COMPANY

AMSTERDAM, ESTABLISHED 1987



**YOUR PASSION
OUR PASSION
DUTCH PASSION**

www.dutch-passion.com